H E A L T H
S T A T U S

by Race and Ethnicity
2010

Utah Department of Health
Center for Multicultural Health

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Acknowledgments

Introduction

U tah Health Status by Race and Ethnicity portrays important "health disparities" by race and ethnicity. Disparities exist when the health status on a given measure in one or more racial/ethnic populations is different from that found statewide. It is a national goal of the U.S. Public Health Service to eliminate health disparities, including those by race and ethnicity. The authors believe that this report will serve as a guide for Utah Department of Health (UDOH) programs and others with an interest in reducing health disparities, so that they may make evidence-based decisions on their priorities and future activities aimed at improving health status in Utah populations.

Department Collaborators

This report was produced by the UDOH, Center for Multicultural Health (CMH) with significant contributions from programs across the UDOH. Health program staff produced the most recent data available by race and ethnicity and reviewed and revised the text related to their areas of expertise. Contact information for a health program that can answer additional questions about the information presented is at the bottom of each data page.

The 2010 Report Versus 2005

This report follows the format of Utah Health Status by Race and Ethnicity: 2005 quite closely, with a few exceptions. First, since 2005, more data sources have become available to us disaggregated by race and ethnicity and we are pleased to present additional racial and ethnic data that were not available or included in the past.

Second, a few of the measures have changed in ways that make their interpretation different from the past. For example, at the time of the 2005 report, the "physical activity" measure included only recreational physical activity. Currently, the measure also includes physical activity that takes place in the workplace. We believe this improves the measure, but it also makes it incomparable to older data.

Finally, for the 2005 report, no suppression rules were applied. For this report, community members consulted chose to follow the new UDOH reporting standards, including suppression. When data results are based on very small numbers, they are subject to rapid change, making them unreliable for health planning purposes. Publishing such small numbers may also compromise the privacy of those few individuals with the health problem. For most indicators with this issue, the data for groups with small numbers are excluded from the report, while races with higher numbers of cases are included. Sometimes, so few races and ethnicities had reportable data under these standards that the indicator page was removed entirely from the report, even though it had been included in 2005. This happened particularly often with data that are collected through mandatory reporting of all Utah cases and not through sampling. Some of these health conditions are so rare that disaggregating them by race and ethnicity is problematic. Some of the indicators included in 2005 but excluded in 2010 due to small numbers were AIDS, hepatitis A, neural tube defects, syphilis and work-related injury deaths.

Health Indicators

Each data page contains a quantitative measure that indicates population health status according to a key public health construct. For each measure, text and data elements provide contextual information.

Factors Affecting Health Disparities

In addition to health indicators, demographic and health care access indicators were also included. Demographics, such as age and poverty, and health care access, such as health insurance coverage and having a primary care provider, are known to affect overall health.

Studies among Utahns and nationwide have found that if such factors were more equal between people of different races and ethnicities, health disparities would be reduced. However, there would still be differences in health status by race and ethnicity. Studies have suggested that cultural issues, linguistic barriers, geographic location, racism, and other factors also contribute to racial and ethnic disparities.

It is not within the scope of this report to determine all of the reasons for the disparities described here. However, the authors believe that by describing the racial and ethnic disparities that exist in Utah, they will facilitate the initiation of projects to explain and address these problems. The CMH is available to collaborate with groups that wish to embark on this type of effort.

Introduction

Report Format

On each page, the text element, "Why is it important?" includes a short paragraph that describes the public health relevance of the measure.

"How are we doing?" describes the state's overall results and any racial or ethnic disparities. This section may also include information about how Utah compares to the U.S., data trends, and more specific details about data results.

"How can we improve?" usually offers a short health message to the public. The message may describe a health guideline, offer prevention advice, and/or refer to a help program. Next, it usually informs readers of what UDOH programs or other state agencies are doing to address the problem. Of course, UDOH acknowledges and appreciates that federal, tribal, and local governments; private, non-profit, and community-based organizations; and individuals are also working to address these health problems. The scope and resources appropriated to this project would not be adequate to catalog all of these important efforts; this report focuses on the UDOH.

Near the top of each page is a bar graph that depicts the values for the measure for all Utahns and for selected racial and ethnic populations. Because these graphs often compare groups with different age distributions, age-adjusted rates are listed whenever appropriate. Each bar in this graph includes a narrow line that depicts the 95% confidence interval for that bar.

At the bottom of each page is a data table that includes those age-adjusted values as well as the annual number of events, population counts that were used to compute rates, crude rates and 95% confidence intervals for the crude and age-adjusted rates. Descriptions of the use and meaning of age-adjusted rates and confidence intervals may be found in Appendices E and F.

The final column of each table contains arrows indicating when the racial or ethnic rates were significantly higher or lower than the statewide rate. For the purposes of this report, a statistically significant difference was defined as, "The age-adjusted (when appropriate) state rate does not overlap with the age-adjusted 95% confidence interval of the rate for the racial/ethnic population." This is consistent with the standard used in the 2005 Health Status by Race and Ethnicity report.

Racial and Ethnic Categories

We acknowledge that significant diversity exists within each of the racial and ethnic categories used in this report, and that the use of such broad categories will, at times, obfuscate health disparities among smaller subgroups. Whenever possible, five race categories were used, separating Pacific Islander from Asian, but this was not always possible. In some cases, data are now stored with Asian and Pacific Islander coded separately, but the change occurred only recently and sufficient data from the most recent years were not adequate to produce reliable results by race and ethnicity. The American Indian racial group is discussed in this report, but people of American Indian race may or may not be members of tribes. A complete description of the race and ethnicity grouping recommended by the U.S. Office of Management and Budget may be found in Appendix B.

Data Limitations

Like all data products, these results have limitations. The report utilizes a wide variety of data sources, all of which have different strengths and weaknesses. For example, the Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years. and Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year. are telephone surveys; they do not include data from individuals who do not have a telephone, and until 2009, did not include data from individuals who used a cell phone instead of a residential phone. For more information, see Appendix H.

When data are disaggregated by race, it is necessary to aggregate a larger number of years of data in order to obtain reliable estimates. Even then, numbers by race may not be high enough to yield statistically significant differences. Failure to uncover such differences may reflect on the rarity of the condition and small size of the racial population instead of proving that a disparity does not exist. For more information, see Appendix F.

⚛ Guide to This Report

This label describes the measure being addressed on the current page.

The section heading appears at the top of each page.

This graph displays the rates by race and ethnicity, using age-adjusted rates when appropriate.

This text further defines and describes the measure being addressed and why it is important.

This text summarizes statewide data and racial and ethnic disparities. National and trend data may also be included.

⚛ Cancer

Lung Cancer Incidence

Why Is It Important?
Lung cancer is the leading cause of cancer-related death in Utah and the U.S.[118]

How Are We Doing?
- There were 29.7 new cases of lung cancer in Utah per 100,000 population from 2000 to 2006 (age-adjusted rate).
- This rate has changed little since 1980, when it was 29.6 per 100,000 population.
- This rate is significantly lower than the U.S. lung cancer incidence rate.
- Black/African-American Utahns had a significantly higher rate of lung cancer than all Utahns.

Utah Lung Cancer Incidence, 2000-2006

Race/Ethnicity	Rate
All Utahns	29.7
American Indian/Alaska Native	19.0
Asian or Pacific Islander	31.5
Black or African American	46.3
White	29.6
Hispanic or Latino	30.5
Non-Hispanic	29.7

(Age-adjusted) Incidence Rate per 100,000

How Can We Improve?
Cigarette smoking causes most lung cancer cases.[42] The UDOH Tobacco Prevention and Control Program (TPCP) funds statewide and local tobacco-use cessation services, including the Utah Tobacco Quit Line (1-888-567-TRUTH), the Spanish Utah Tobacco Quit Line (1-877-629-1585), a web-based cessation service (www.utahquitnet.com), and school and community-based programs for teens and pregnant women. TPCP funds community-based organizations to tailor marketing materials and messages and provide outreach for racial and ethnic groups. A statewide media campaign in English and Spanish advertises these services and motivates smokers to quit. Quitting smoking reduces risk of lung cancer, but even after many years of not smoking, the risk to former smokers remains higher than in persons who have never smoked. Only smoking prevention can stop the epidemic of lung cancer.[42] The TPCP prevents youth tobacco use through media campaigns, school-based programs, and youth advocacy groups. Raising the price of tobacco products through increased taxation is also an effective method to prevent tobacco use.[119] Radon is the second most important cause of lung cancer after smoking. Testing is the only way to know if a home has elevated radon levels.[120] You can learn more about radon and purchase reduced price testing kits at the Utah Department of Environmental Quality, Division of Radiation Control website: http://www.radon.utah.gov/.

This text provides a public health message and informs of UDOH program efforts.

Utah Lung Cancer Incidence, 2000-2006

Race/Ethnicity	Avg. Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	511	2,394,590	21.3(20.6- 22.0)	29.7(28.7- 30.6)	n/a
American Indian/Alaska Native	2	34,511	7.0(4.1- 11.3)	19.0(10.6- 30.6)	
Asian or Pacific Islander	11	67,815	15.6(12.2- 19.6)	31.5(24.6- 39.6)	
Black or African American	4	29,485	14.1(9.4- 20.2)	46.3(30.4- 66.5)	↑
White	493	2,262,779	21.8(21.1- 22.5)	29.6(28.6- 30.6)	
Hispanic or Latino	21	242,943	8.8(7.5- 10.4)	30.5(25.5- 36.0)	
Non-Hispanic	489	2,151,647	22.7(22.0- 23.5)	29.7(28.7- 30.7)	

Source: Surveillance, Epidemiology, and End Results (SEER) Program

*Age adjusted to the U.S. 2000 standard population
** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

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Arrows indicate statistically significant differences from the statewide population (health disparities).

This table contains the data used to create the graph. It also includes the sample size (where applicable), total number of people in the relevant population, and the estimated number of those people who were affected by the measure.

Contact information is provided for a UDOH program that can answer further questions on the topic.

DEMOGRAPHIC CONTEXT

Proportion of the Utah Population

Why Is It Important?
Our current health system was developed based on the needs and perspectives of the majority of Utahns, most of whom are non-Hispanic White. As a result, Utahns of other cultures often experience barriers to receiving culturally appropriate health care. Because of this and other social factors, the health status of minority racial and ethnic groups is often poorer than that of the majority population.[1]

How Are We Doing?
- Non-Hispanic Whites made up 83.6% of the Utah population from 2006-2008.
- Hispanics/Latinos were Utah's largest minority group, making up 11.5% of the Utah population.
- Native Hawaiians/Pacific Islanders were Utah's smallest minority group, making up 1.0% of the Utah population. However, Utah has a larger Native Hawaiian/Pacific Islander population than most other states.[2]
- About three-quarters of the foreign-born population in Utah are racial or ethnic minorities, compared with only 10 percent of the native-born population.[3]
- Over the past 30 years, immigrants have come to Utah in record numbers.[3]
- The Utah minority share of the population grew from 1.9% in 1960 to 17.7% in 2007.[3]
- Most newcomers to Utah, both immigrants and from other U.S. states, are in their childbearing years. They bring children with them and give birth to children after they arrive, increasing Utah's diversity.[3]

Utah Racial and Ethnic Groups, 2006-2008

Race/Ethnicity	Number of Persons
All Utahns	2,663,500
American Indian/Alaska Native	44,701
Asian	68,048
Black or African American	38,978
Native Hawaiian/Pacific Islander	27,306
White	2,446,218
Hispanic or Latino	306,887
White, Non-Hispanic	2,227,461
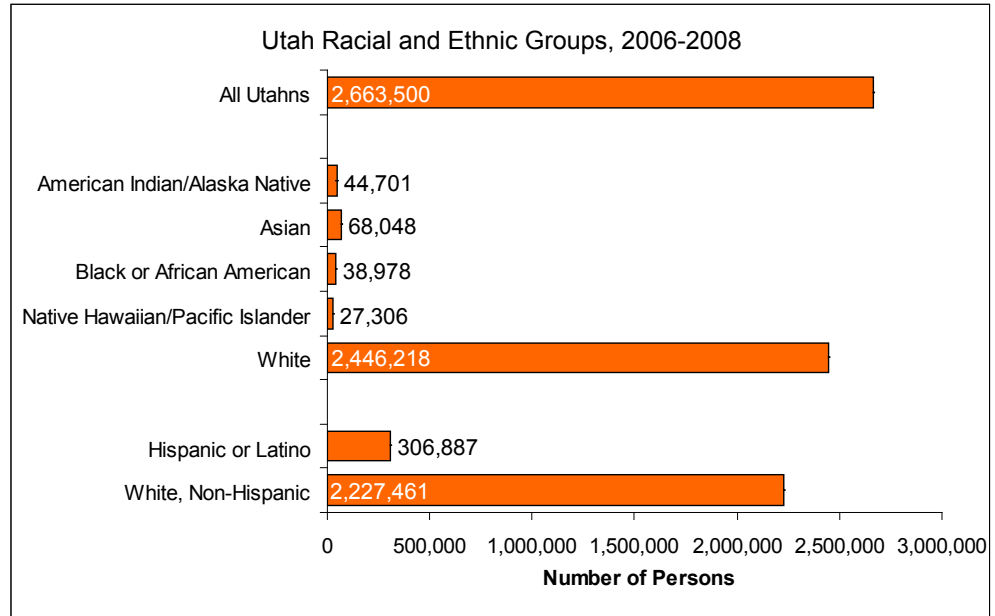
How Can We Improve?
Persons from different cultures often need information about the complicated and unfamiliar U.S. health system and maintaining their health in an unfamiliar environment. Health professionals are often accustomed to serving only people from majority cultures and need assistance to better serve minorities.

Percentage of Utahns and Total Population by Race, 2006-2008

Race/Ethnicity	Percent of Utahns	Total Population (95% CI Range)
All Utahns	100.0%	2,663,500
American Indian/Alaska Native	1.7%	44,701 (43,361- 46,041)
Asian	2.6%	68,048 (67,092- 69,004)
Black or African American	1.5%	38,978 (37,941- 40,015)
Native Hawaiian/Pacific Islander	1.0%	27,306 (26,326- 28,286)
White	91.8%	2,446,218 (2,445,677- 2,446,759)
Hispanic or Latino	11.5%	306,887 (305,973- 307,801)
White, Non-Hispanic	83.6%	2,227,461 (2,224,722- 2,230,200)

Source: American Community Survey
Population Estimates are for Race Alone or in Combination with Other Races

The UDOH, Center for Multicultural Health encourages and assists health care and public health professionals to provide culturally and linguistically appropriate services and provides resources to help minorities achieve optimal health, such as the online Multilingual Library. The UDOH, TB Control and Refugee Health Program provides case management and health services to refugees. The Program also offers medical interpreter training free of charge to qualified interpreters working for health-related non-profit agencies throughout the state.

Age Distribution

Why Is It Important?
The age of a population has implications for the types of services emphasized (e.g., family planning versus cancer screening). The median age is that at which half the population is younger and the other half older.

How Are We Doing?
- From 2006-2008, half of Utahns were under 28.5 years old.
- Utahns are on average younger than the rest of the U.S. population.[4]
- The Utah American Indian/ Alaska Native, Asian, Black/ African American, Native Hawaiian/Pacific Islander, and Hispanic/Latino populations had significantly younger median ages than the statewide population.
- Young adults in their childbearing years, with their children, compose the majority of migration to Utah. These new residents are more diverse than the native population.[3]
- Hispanics/Latinos and Native Hawaiians/Pacific Islanders have higher fertility rates than the Utah population.[3]
- Nearly one-fourth of preschool-age persons in Utah in 2007 were racial or ethnic minorities. In contrast, less than 10% of retirement-age Utahns were minorities.[3]

Median Age by Race and Ethnicity, Utah, 2006-2008
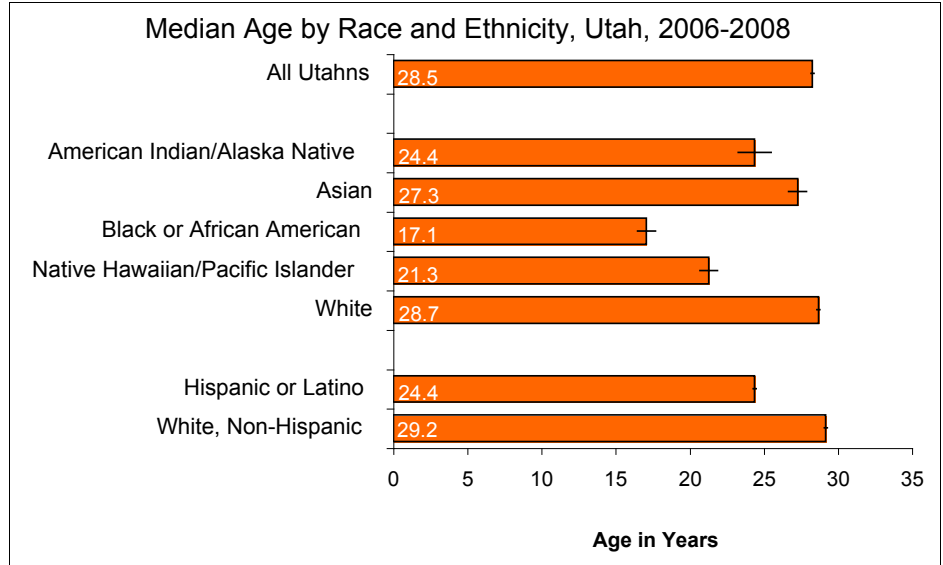
How Can We Improve?
It is especially important that services targeted to children and young people be culturally appropriate because of the diversity of younger people in Utah. As these young people age, the statewide population will become much less homogenous. The UDOH, Center for Multicultural Health encourages and assists health care and public health professionals to provide culturally and linguistically appropriate services. Because health status is strongly associated with age, and Utah racial and ethnic minorities are younger than the statewide population, UDOH uses age-adjusted estimates of health status to analyze health disparities when appropriate. (See Appendix E.)

Age Distribution and Median Age of Utah Racial and Ethnic Populations, 2006-2008

Race/Ethnicity	<5	5-17	18-24	25-34	35-44	45-54	55-64	65-74	75 +	Median Age in Years *(95% CI Range)*
All Utahns	9.7%	21.3%	12.3%	16.1%	12.1%	11.5%	8.1%	4.7%	4.2%	28.5 *(28.4 - 28.6)*
American Indian/Alaska Native	9.9%	27.5%	13.5%	15.6%	11.8%	10.8%	7.0%	2.6%	1.4%	24.4 *(23.3 - 25.5)*
Asian	11.6%	21.7%	11.9%	18.1%	14.0%	10.4%	6.2%	3.4%	2.6%	27.3 *(26.7 - 27.9)*
Black or African American	16.8%	35.2%	13.7%	11.1%	9.2%	7.4%	4.0%	1.5%	1.2%	17.1 *(16.5 - 17.7)*
Native Hawaiian/Pacific Islander	13.1%	29.0%	15.9%	14.2%	11.9%	8.1%	4.1%	2.5%	1.1%	21.3 *(20.7 - 21.9)*
White	9.7%	21.0%	12.3%	16.0%	11.8%	11.6%	8.3%	4.9%	4.4%	28.7 *(28.6 - 28.8)*
Hispanic or Latino	14.0%	26.3%	10.6%	19.3%	14.1%	8.2%	4.1%	2.0%	1.3%	24.4 *(23.2 - 25.6)*
White, Non-Hispanic	9.2%	20.4%	12.5%	15.7%	11.6%	12.0%	8.7%	5.2%	4.7%	29.2 *(28.9 - 29.5)*

Source: American Community Survey. Estimates are for average of 2006-2008 years and for race alone or in combination with other races.

Life Expectancy at Birth

Why Is It Important?
Life expectancy is often used to gauge the overall health of a community. It is an estimate of the expected average number of years of life (or a person's age at death) for individuals who were born into a particular population. Small increases in life expectancy translate into large increases in the size of the population. As the life expectancy of a population lengthens, the number of people living with chronic illnesses tends to increase because chronic illnesses are more common among older persons.[5]

Utah Life Expectancy at Birth, 2004-2008

Race/Ethnicity	Years
All Utah Adults	78.9
American Indian/Alaska Native	76.7
Asian	82.8
Black or African American	77.2
Native Hawaiian/Pacific Islander	78.3
White	79.0
Hispanic or Latino	79.9
White, Non-Hispanic	78.9
Other, Non-Hispanic	78.9

How Are We Doing?
- The Utah life expectancy at birth from 2004-2008 was 78.9 years.
- Life expectancy has increased over the past century.[5]
- Asian Utahns had the highest estimated life expectancy of all Utah racial and ethnic groups.
- American Indian/Alaska Native Utahns had the lowest estimated life expectancy all Utah racial and ethnic groups.
- Life expectancy at birth is strongly influenced by deaths among younger age groups.[5] The Utah American Indian/Alaska Native population has the highest rates of unintentional injury death and violent death of all Utah racial and ethnic groups. These kinds of death frequently affect younger people. (See page 66 and page 71.)

Life Expectancy at Birth, Utah, 2004-2008

Race/Ethnicity	Life Expectancy
All Utahns	78.9
American Indian/Alaska Native	76.7
Asian	82.8
Black or African American	77.2
Native Hawaiian/Pacific Islander	78.3
White	79.0
Hispanic or Latino	79.9
White, Non-Hispanic	78.9
Other, Non-Hispanic	78.9

Source: Office of Public Health Assessment.
Death data from Utah Death Certificate Database, 2004 to 2008. Five year population count based on Office of Public Health Assessment, 2006 population estimates.
The Reed-Merrill method was used for calculating life expectancy.

There are no confidence intervals for these data; significant differences between the life expectancies cannot be evaluated.

The life expectancies for several groups are based on small numbers; they could change noticeably with a few additional deaths overall or with additional deaths in a particular age group.

How Can We Improve?
Physical activity, healthy diet and weight, not smoking, moderate use of alcohol, and injury prevention such as wearing seat belts all contribute to a longer life span. Life expectancy at birth can be improved particularly by reducing infant mortality, unintentional injury death, and violent death. Improvements in life expectancy increase the proportion of older individuals living in society. Policy-makers must be aware of this trend in order to provide viable and attractive options for elderly persons who require assistance with activities of daily living. The Utah Department of Human Services, Division of Aging & Adult Services provides people who are 60 or older with health promotion activities, nutrition services such as Meals on Wheels, and services to help seniors with activity limitation continue living in their homes.

Poverty

Why Is It Important?

Persons living in poverty are less healthy than other Utahns in many ways.[6] Poverty status takes into account income and family size. The measure is based on the poverty guidelines published annually by the U.S. Department of Health and Human Services. In 2009, the poverty guideline for a family of four was $22,050.[7] The percentage of persons in poverty provides an indicator of the financial resources available for basic necessities to maintain or improve individual and family well being such as food, clothing, and health care.[6]

Utahns Living in Poverty, 2006-2008
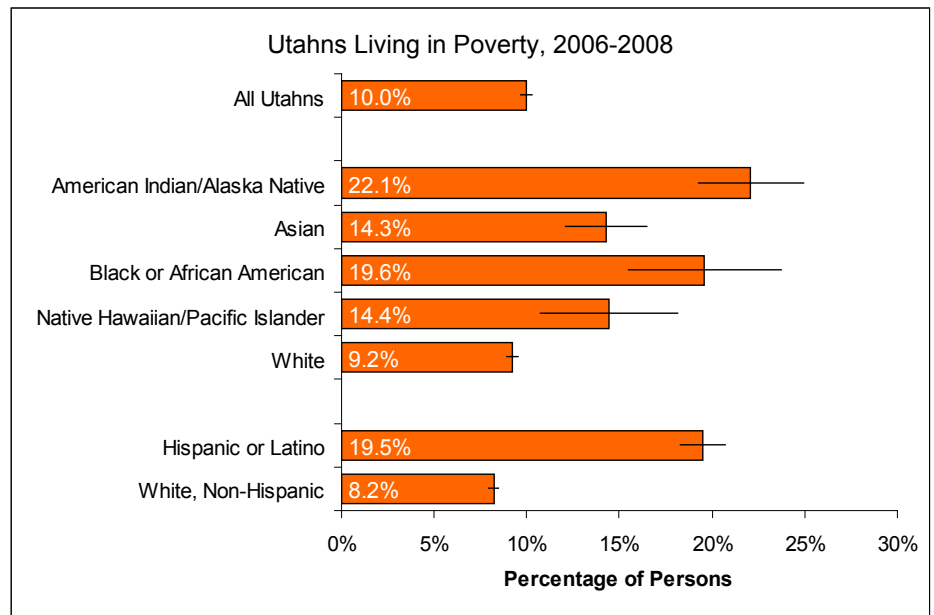
How Are We Doing?

- From 2006-2008, 10% of Utahns—more than 266,000 people—were living in poverty in Utah.
- American Indian/Alaska Native, Asian, Black/African American, Native Hawaiian/Pacific Islander, and Hispanic/Latino Utahns had significantly higher poverty rates than all Utahns.
- White, Non-Hispanic Utahns had a significantly lower poverty rate than all Utahns.
- Poverty rates on this page have not been age-adjusted. All Utah minority populations are, on average, younger than all Utahns, and therefore earlier in their careers and lifelong earning power. This may account for some share of the higher poverty rates.
- Since January 2008, the United States has experienced an economic recession which has resulted in many lost jobs.[8] Therefore, it is likely that updated measures of poverty status will show an increase in poverty.

How Can We Improve?

Health care "safety net" programs such as Medicaid, CHIP, and the Primary Care Network (PCN) provide some relief to those who are eligible. Utah's community health centers also fill a critical niche in providing high-quality health care services to Utahns of any income level. Programs such as Head Start and those that provide assistance linking people with jobs aim to reduce poverty by increasing social functioning and self-sufficiency. Other programs, such as minimum wage requirements, food stamps, Temporary Assistance for Needy Families (TANF), and government subsidized health insurance and child care, provide assistance to families needing additional support.[6] Utah Cares, www.utahcares.utah.gov, provides a means to search and apply for state and community services such as medical and financial assistance.

Percentage of Utahns Living in Poverty, 2006-2008

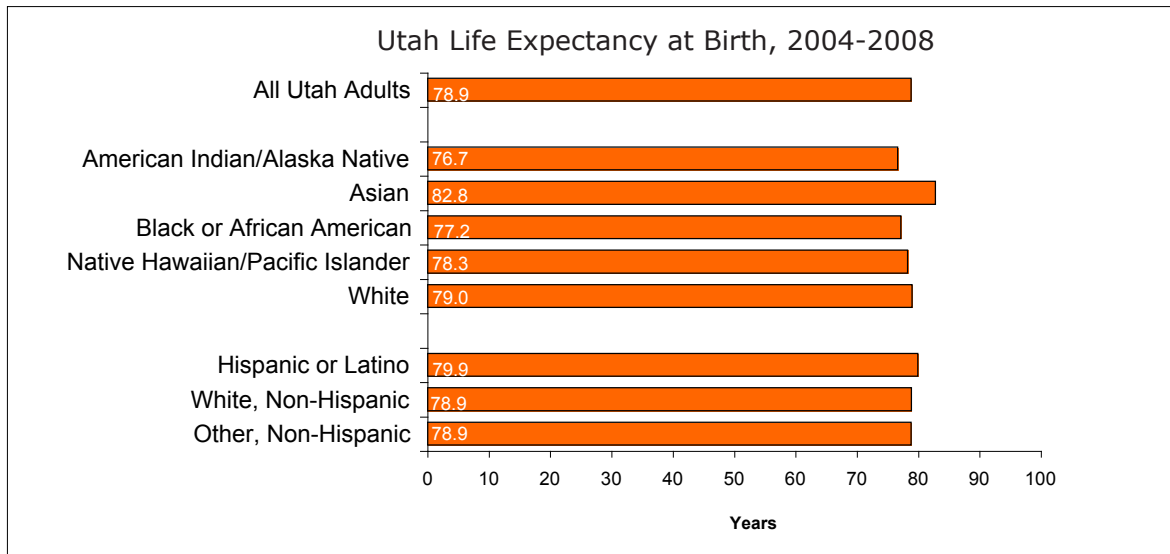| Race/Ethnicity	# in Poverty	Total Population	Crude Rate (95% CI Range)	Sig.*
All Utahns	266,350	2,663,500	10.0% (9.7%- 11.6%)	n/a
American Indian/Alaska Native	9,879	44,701	22.1% (19.3%- 29.7%)	↑
Asian	9,731	68,048	14.3% (12.1%- 13.7%)	↑
Black or African American	7,640	38,978	19.6% (15.5%- 23.5%)	↑
Native Hawaiian/Pacific Islander	3,932	27,306	14.4% (10.7%- 18.9%)	↑
White	225,052	2,446,218	9.2% (8.9%- 10.5%)	
Hispanic or Latino	59,843	306,887	19.5% (18.3%- 26.3%)	↑
White, Non-Hispanic	182,652	2,227,461	8.2% (7.9%- 8.5%)	↓

Source: American Community Survey. Estimates are for average of 2006-2008 years and for race alone or in combination with other races.

*The crude rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Child Poverty

Why Is It Important?

Poverty in the early years of a child's life, more than at any other time, has especially harmful effects on continuing healthy development and well being, including developmental delays and infant mortality. Well being measures in later childhood, such as teen pregnancy, substance abuse, and educational attainment, are also influenced by early childhood poverty.[9]

Utah Children (17 and Under) Living in Poverty, 2005-2007

Group	Percentage
All Utah Children (17 and under)	11.1%
American Indian/Alaska Native	25.9%
Asian	11.5%
Black or African American	17.9%
Native Hawaiian/Pacific Islander	15.2%
White	10.0%
Hispanic or Latino	24.5%
White, Non-Hispanic	8.0%

Percentage of Children

How Are We Doing?

- From 2006-2008, 11.1% of Utah children—more than 91,000 children—were living in poverty in Utah.
- American Indian/Alaska Native, Black/African American, and Hispanic/Latino Utah children had significantly higher poverty rates than all Utah children.
- White, Non-Hispanic Utah children had a significantly lower poverty rate than all Utah children.
- Since January 2008, the United States has experienced an economic recession which has resulted in many lost jobs.[8] Therefore, it is likely that updated measures of poverty status will show an increase in poverty.

How Can We Improve?

Health care "safety net" programs such as Medicaid, CHIP, and the Primary Care Network (PCN) provide some relief to those who are eligible. Utah's community health centers also fill a critical niche in providing high-quality health care services to Utahns of any income level. Programs such as Head Start and those that provide assistance linking people with jobs aim to reduce poverty by increasing social functioning and self-sufficiency. Other programs, such as minimum wage requirements, food stamps, Temporary Assistance for Needy Families (TANF), and government subsidized health insurance and child care, provide assistance to families needing additional support.[6] Utah Cares, www.utahcares.utah.gov, provides a means to search and apply for state and community services such as medical and financial assistance.

Percentage of Utah Children Living in Poverty, 2006-2008

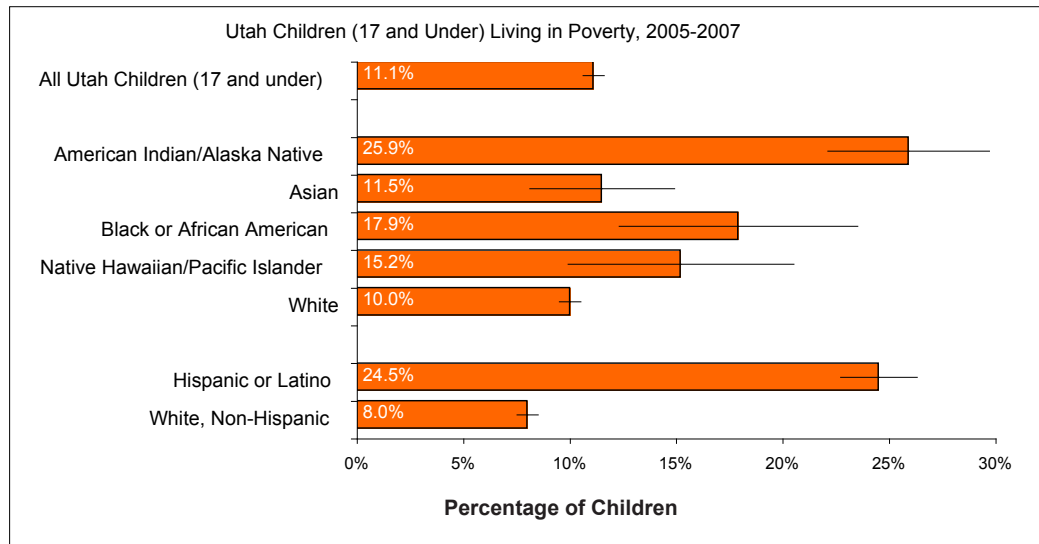| Race/Ethnicity	# in Poverty	Total Child Population	Crude Rate *(95% CI Range)*	Sig.*
All Utah Children (17 and under)	91,663	825,789	11.1% (*10.6%- 11.6%*)	n/a
American Indian/Alaska Native	4,323	16,691	25.9% (*22.1%- 29.7%*)	↑
Asian	2,606	22,657	11.5% (*9.3%- 13.7%*)	
Black or African American	3,627	20,260	17.9% (*12.3%- 23.5%*)	↑
Native Hawaiian/Pacific Islander	1,747	11,491	15.2% (*11.5%- 18.9%*)	
White	75,111	751,106	10.0% (*9.5%- 10.5%*)	↓
Hispanic or Latino	30,306	123,697	24.5% (*22.7%- 26.3%*)	↑
White, Non-Hispanic	52,815	660,184	8.0% (*7.5%- 8.5%*)	↓

Source: American Community Survey. Estimates are for average of 2006-2008 years and for race alone or in combination with other races.

*The crude rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

HEALTH CARE SERVICES AND SYSTEMS

No Health Insurance Coverage

Why Is It Important?
The uninsured get fewer and less timely preventive and screening services. Overall, they are sicker and more likely to die prematurely than their insured counterparts.[10]

How Are We Doing?
- From 2006 to 2008, 10.3% of Utahns reported having no health insurance coverage (age-adjusted rate).
- Over the past 10 years, health insurance coverage rates have decreased in Utah and the U.S.[11]
- Since January 2008, the U.S. has experienced an economic recession and job loss.[8] Therefore, it is likely that updated measures will show a continued decline in coverage.
- American Indian/Alaska Native and Hispanic/Latino Utahns had significantly higher age-adjusted rates of no health insurance coverage than all Utahns.
- White, non-Hispanic Utahns had a significantly lower age-adjusted rate of no health insurance coverage than all Utahns.

Utahns Without Health Insurance Coverage, 2006-2008

Race/Ethnicity	(Age-adjusted) Percentage
All Utahns	10.3%
American Indian/Alaska Native	17.9%
Asian	7.7%
Black or African American	8.3%
Native Hawaiian/Pacific Islander	16.6%
White	7.5%
Hispanic or Latino	31.3%
White, Non-Hispanic	7.2%
Other, Non-Hispanic	15.1%

How Can We Improve?
Legislative changes could potentially address rising health insurance costs and the health insurance practice of refusing coverage for sick people. Existing UDOH programs helping some of those who cannot afford health insurance include Medicaid, Children's Health Insurance Program (CHIP), the Primary Care Network (PCN), and Utah's Premium Partnership for Health Insurance (UPP). The UDOH, Office of Primary Care and Rural Health offers grants to clinics that treat the uninsured. The Utah Insurance Department (UID) administers HIPUtah, which sells insurance to people refused coverage by private insurers due to health problems. In 2009, UID began the Utah Health Exchange, www.utahinsuranceexchange.info/, to assist Utah companies in purchasing health insurance policies.

Percentage of Utahns With No Health Insurance Coverage, 2006-2008

Race/Ethnicity	Sample Size	Total Population	#Without Health Insurance	Crude Rate *(95% CI Range)*	Age-adjusted Rate* *(95% CI Range)*	Sig.**
All Utahns	27,745	2,699,554	298,860	11.1% (10.1%- 12.1%)	10.3% (9.4% - 11.3%)	n/a
American Indian/Alaska Native	285	38,517	6,808	17.7% (11.4%- 26.5%)	17.9% (11.6% - 26.5%)	↑
Asian	240	59,078	4,439	7.5% (3.6%- 14.9%)	7.7% (3.8% - 15.1%)	
Black or African American	144	40,388	3,000	7.4% (3.2%- 16.5%)	8.3% (3.1% - 20.6%)	
Native Hawaiian/Pacific Islander	148	22,199	5,105	23.0% (11.1%- 41.7%)	16.6% (8.3% - 30.5%)	
White	24,143	2,539,372	203,386	8.0% (7.3%- 8.8%)	7.5% (6.9% - 8.2%)	↓
Hispanic or Latino	1,475	314,287	111,663	35.7% (30.3%- 41.6%)	31.3% (26.5% - 36.6%)	↑
White, Non-Hispanic	23,218	2,241,726	171,019	7.6% (6.9%- 8.4%)	7.2% (6.5% - 7.9%)	↓
Other, Non-Hispanic	189	143,540	23,513	16.4% (7.8%- 31.1%)	15.1% (6.8% - 30.1%)	

Source: Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
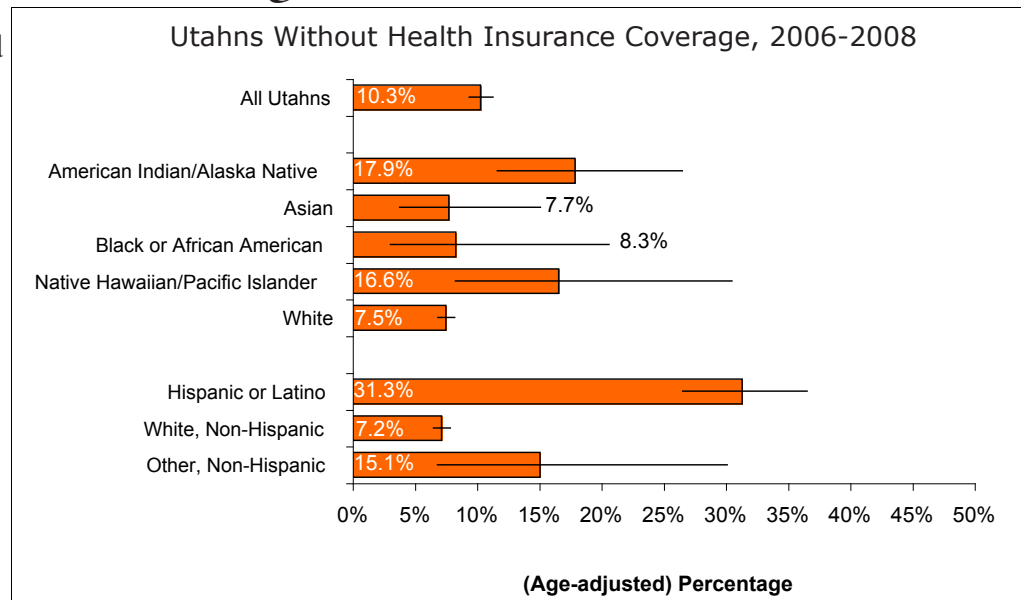
Health Care Services and Systems

Unable to Access Health Care

Why Is It Important?

Health care costs have been rising in the U.S. for several years, outpacing inflation and income growth. Per capita health care spending in the U.S. is among the highest of all industrialized countries.[12] As costs rise, fewer employers offer health insurance. Other barriers include high insurance deductibles and co-insurance rates, services not covered by the insurance, geographic distance from hospitals and clinics, language and cultural barriers, and racial bias in health care settings.[13]

Utahns Without Access to Needed Health Care, 2006-2008

Group	Percentage
All Utahns	15.2%
American Indian/Alaska Native	37.0%
Asian	22.1%
Black or African American	29.6%
Native Hawaiian/Pacific Islander	16.1%
White	14.8%
Hispanic or Latino	20.4%
White, Non-Hispanic	14.5%
Other, Non-Hispanic	20.8%

(Age-adjusted) Percentage

How Are We Doing?

- From 2006 to 2008, 15.2% of Utahns reported that they were unable to get needed medical, dental, or mental health care in the past year (age-adjusted rate).
- American Indian/Alaska Native, Black/African American and Hispanic/Latino Utahns had significantly higher age-adjusted rates of problems with access to health care than all Utahns.
- For Utahns overall and for most races and ethnicities, rates of problems with access to health care were higher than rates of being uninsured, indicating that being uninsured is not the only barrier to care. (See)

How Can We Improve?

The UDOH, Office of Primary Care and Rural Health offers grants to clinics that treat underserved populations. The UDOH, Center for Multicultural Health helps health care providers improve cultural and linguistic appropriateness. The UDOH, TB Control and Refugee Health Program offers medical interpreter training free of charge to qualified interpreters working for health-related non-profit agencies throughout the state. The UDOH, Office of Health Care Statistics publishes annual data about health plan and facility quality and prices to help Utahns make informed health care choices.

Percentage of Persons Who Were Unable to Get Needed Medical, Dental, or Mental Health Care in the Previous 12 Months, 2006-2008

Race/Ethnicity	Sample Size	Total Population	# Unable to Access Care	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	28,023	2,699,554	430,050	15.9% (15.2%- 16.7%)	15.2% (14.4% - 16.0%)	n/a
American Indian/Alaska Native	297	38,517	14,700	38.2% (25.3%- 53.0%)	37.0% (25.5% - 50.3%)	↑
Asian	237	59,078	12,446	21.1% (14.5%- 29.6%)	22.1% (14.9% - 31.5%)	
Black or African American	146	40,388	8,854	21.9% (14.3%- 32.1%)	29.6% (18.9% - 43.0%)	↑
Native Hawaiian/Pacific Islander	146	22,199	3,771	17.0% (9.1%- 29.6%)	16.1% (8.6% - 28.4%)	
White	24,494	2,539,372	380,007	15.0% (14.2%- 15.8%)	14.8% (14.0% - 15.6%)	
Hispanic or Latino	1,413	314,287	67,406	21.3% (17.6%- 25.5%)	20.4% (16.9% - 24.4%)	↑
White, Non-Hispanic	23,571	2,241,726	329,848	14.7% (14.0%- 15.5%)	14.5% (13.8% - 15.3%)	
Other, Non-Hispanic	190	143,540	28,535	19.9% (12.9%- 29.3%)	20.8% (13.8% - 30.2%)	

Source: Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Center for Multicultural Health, 1-888-222-2542, http://www.health.utah.gov/cmh

No Primary Care Provider: No Usual Place of Medical Care

Why Is It Important?
Primary care providers (PCPs) manage patients' medical care effectively and efficiently because they know their medical history and social background. Persons with a usual place of care are more likely to have routine medical visits and health screenings that may prevent disability and early death.[14]

How Are We Doing?
- From 2006 to 2008, 10.2% of Utahns reported having no usual place of medical care (age-adjusted rate).
- Hispanic/Latino Utahns had a significantly higher rate of not having a usual place of medical care (PCP) than all Utahns.
- Hispanic/Latino Utahns also had the highest rate of no health insurance coverage. (See page 16.)
- White, non-Hispanic Utahns had a significantly lower rate of not having a PCP than all Utahns.
- Persons who had health insurance coverage were significantly more likely to have a usual place of care (91% vs. 65% in 2008).[14]

Utahns With No Usual Place of Medical Care, 2006-2008

Race/Ethnicity	Value
All Utahns	10.2%
American Indian/Alaska Native	10.5%
Asian	12.5%
Black or African American	13.3%
Native Hawaiian/Pacific Islander	6.0%
White	8.6%
Hispanic or Latino	20.9%
White, Non-Hispanic	8.5%
Other, Non-Hispanic	24.3%

(Age-adjusted) Percentage

How Can We Improve?
UDOH recommends that all health care be regulated through a PCP, who can refer to specialists when needed. Family practice, internal medicine, pediatrics or obstetrics and gynecology (Ob/Gyn) doctors; nurse practitioners, or physician assistants can be PCPs.[15] Health care providers who receive federal funds are required to offer medical interpreting services.[16] The UDOH, Office of Primary Care and Rural Health Health designates Professional Shortage Areas and Medically Underserved Areas/Populations to qualify Utah for federal programs and offers grants to clinics that treat underserved groups. Utah Cares, www.utahcares.utah.gov, provides a means to search for state and community services such as medical and financial assistance.

Place of Care: Percentage of Persons Who Had No Usual Place of Medical Care, 2006-2008

Race/Ethnicity	Sample Size	Total Population	#Without Usual Place of Health Care	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	28,205	2,699,554	293,981	10.9% (10.1%- 11.7%)	10.2% (9.4% - 11.0%)	n/a
American Indian/Alaska Native	302	38,517	4,270	11.1% (5.8%- 20.1%)	10.5% (5.5% - 19.2%)	
Asian	243	59,078	8,301	14.1% (8.0%- 23.5%)	12.5% (7.1% - 21.0%)	
Black or African American	142	40,388	5,964	14.8% (7.1%- 28.3%)	13.3% (5.6% - 28.4%)	
Native Hawaiian/Pacific Islander	147	22,199	1,553	7.0% (2.7%- 16.9%)	6.0% (2.2% - 14.9%)	
White	24,547	2,539,372	229,541	9.0% (8.3%- 9.8%)	8.6% (8.0% - 9.3%)	↓
Hispanic or Latino	1,514	314,287	73,225	23.0% (18.9%- 27.7%)	20.9% (17.1% - 25.3%)	↑
White, Non-Hispanic	23,615	2,241,726	199,310	8.9% (8.2%- 9.7%)	8.5% (7.8% - 9.2%)	↓
Other, Non-Hispanic	191	143,540	35,767	24.9% (15.2%- 38.1%)	24.3% (14.9% - 37.0%)	↑

Source: Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year.
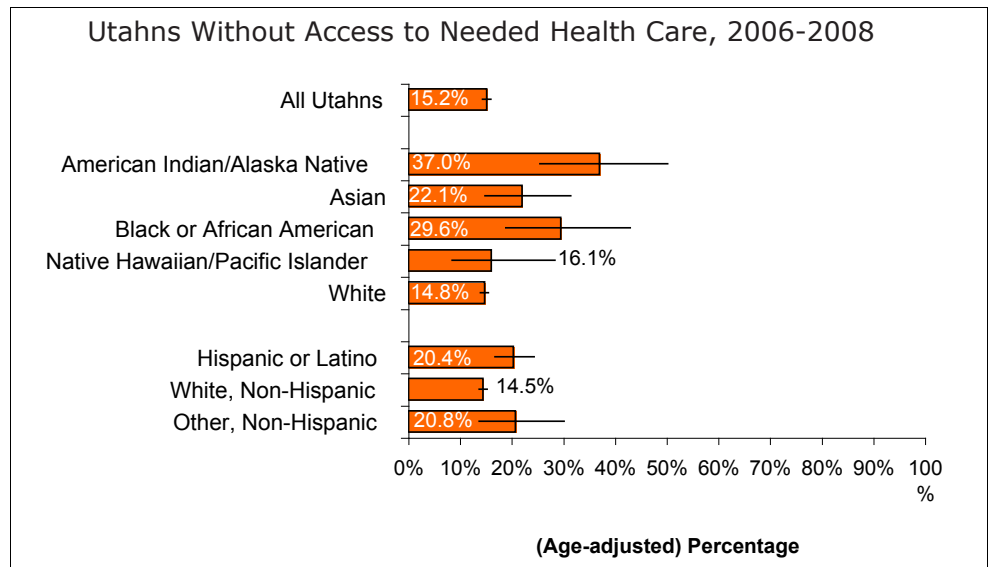
*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Center for Multicultural Health, 1-888-222-2542, http://www.health.utah.gov/cmh

Routine Medical Checkup

Why Is It Important?
Early detection and treatment of disease improves the chances of full recovery. Physician counseling can influence health behaviors and prevent disease entirely in many cases.[17]

How Are We Doing?
- From 2006 to 2008, 71.8% of Utahns reported having a routine medical checkup within the past year (age-adjusted rate).
- Native Hawaiian/Pacific Islander Utahns had a significantly higher age-adjusted rate of having a checkup than all Utahns.
- Persons with a usual place of care (a primary care provider) were significantly more likely to receive checkups (73% vs. 57%) and health screening exams.[14]
- Of Utahns with fair or poor health, 31.9% had no checkup in 2008. Further, among persons who were in fair or poor health and also lacked health insurance, 42.9% had no checkup.[17]

Utahns With a Routine Medical Checkup in the Past Year, 2006-2008

Group	(Age-adjusted) Percentage
All Utahns	71.8%
American Indian/Alaska Native	75.6%
Asian	73.3%
Black or African American	72.9%
Native Hawaiian/Pacific Islander	83.3%
White	71.4%
Hispanic or Latino	75.3%
White, Non-Hispanic	71.4%
Other, Non-Hispanic	68.5%

How Can We Improve?
Depending on age, gender, and health status, routine medical checkups are recommended at least once every two years or more often. These visits may include immunizations and screenings for cardiovascular diseases, diabetes, cancers, etc. Well-child visits for children also address developmental milestones.[125,126] Existing UDOH programs helping some of the people who cannot afford health care include Medicaid, Children's Health Insurance Program (CHIP), the Primary Care Network (PCN), and Utah's Premium Partnership for Health Insurance (UPP). The UDOH, Office of Primary Care and Rural Health designates Professional Shortage Areas and Medically Underserved Areas/Populations to qualify Utah for federal programs and offers grants to clinics that treat underserved groups. Utah Cares, www.utahcares.utah.gov, provides a means to search for state and community services such as medical and financial assistance.

Preventive Medical Visit: Percentage of Persons Who Received a Routine Medical Checkup in the Previous 12 Months, 2006-2008

Race/Ethnicity	Sample Size	Total Population	#With Checkup	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	22,454	2,699,554	1,923,743	71.3% (70.3%- 72.3%)	71.8% (70.8% - 72.9%)	n/a
American Indian/Alaska Native	234	38,517	28,894	75.0% (66.8%- 81.8%)	75.6% (67.4% - 82.3%)	
Asian	198	59,078	41,365	70.0% (58.0%- 79.8%)	73.3% (62.2% - 82.0%)	
Black or African American	111	40,388	30,228	74.8% (62.2%- 84.3%)	72.9% (60.0% - 82.8%)	
Native Hawaiian/Pacific Islander	102	22,199	17,642	79.5% (66.3%- 88.4%)	83.3% (72.2% - 90.5%)	↑
White	19,755	2,539,372	1,795,488	70.7% (69.7%- 71.7%)	71.4% (70.4% - 72.4%)	
Hispanic or Latino	996	314,287	233,885	74.1% (68.7%- 78.9%)	75.3% (70.1% - 79.8%)	
White, Non-Hispanic	19,033	2,241,726	1,586,171	70.8% (69.7%- 71.8%)	71.4% (70.4% - 72.4%)	
Other, Non-Hispanic	136	143,540	97,444	67.9% (56.6%- 77.5%)	68.5% (56.8% - 78.3%)	

Source: Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
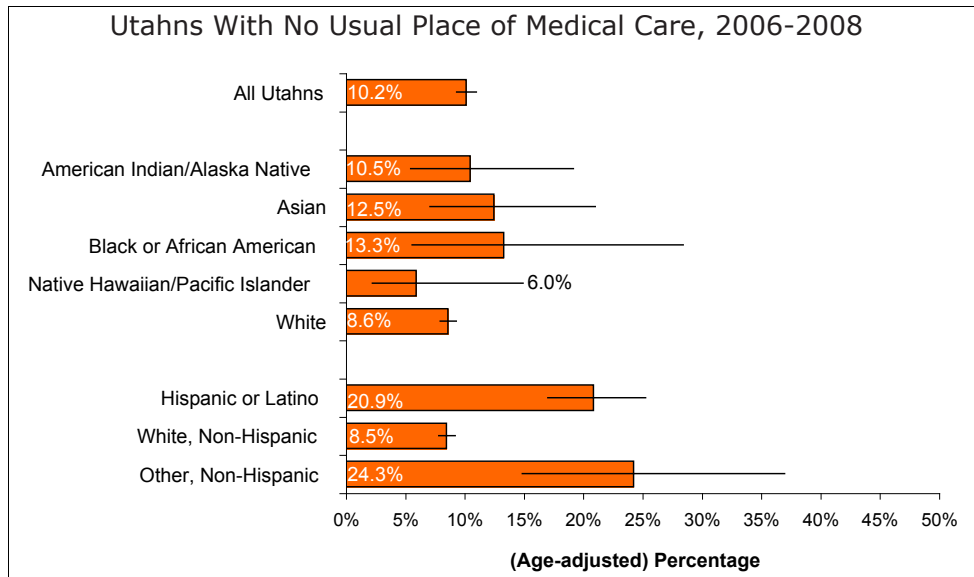
Contact: UDOH Center for Multicultural Health, 1-888-222-2542, http://www.health.utah.gov/cmh

Emergency Department Point of Access to Medical Care

Why Is It Important?

Care in the Emergency Department (ED) is more expensive than care at a physician's office when appropriate.[18] EDs and urgent care clinics do not have access to the medical history that primary care physicians have, which can lead to unnecessary tests and procedures.[15]

How Are We Doing?

- From 2006 to 2008, 6.6% of Utahns reported that an ED or urgent care center was their primary point of access to health care (age-adjusted rate).

Utahns Whose Usual Point of Access Was ED or Urgent Care Center, 2006-2008

- There were no statistically significant differences in rates of using the ED as a point of access to health care by race or ethnicity.
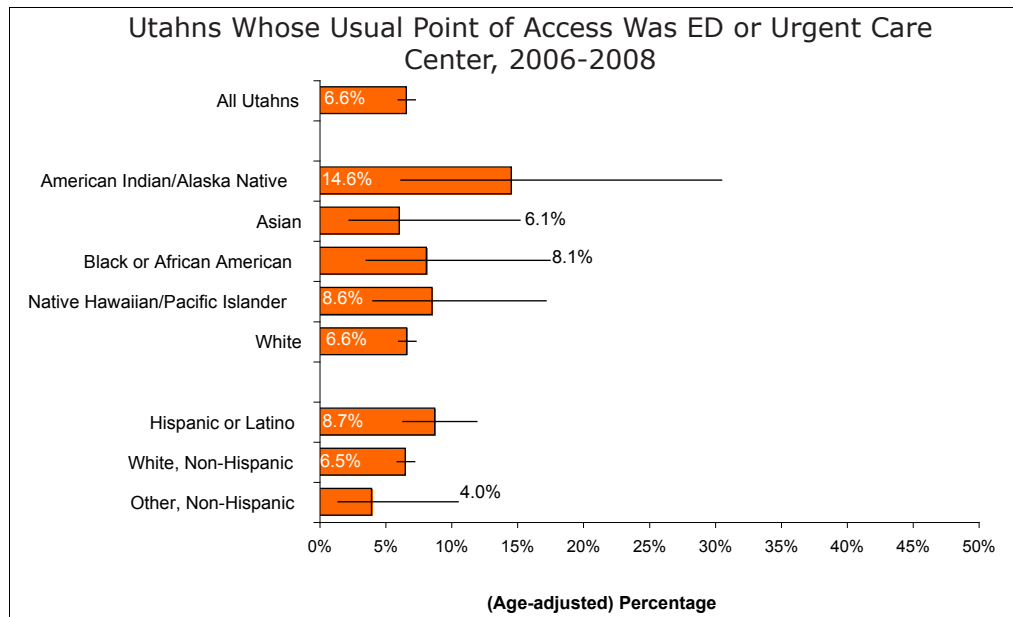
How Can We Improve?

Using the hospital ED is appropriate when a life is in danger or a permanent disability could result from not getting immediate medical care and treatment, such as for heart or breathing problems, serious burns, or heavy bleeding. For less serious problems that still require immediate treatment, urgent care clinics are a good option if the primary care provider is not available. Urgent care clinics are open more hours than regular medical offices and see patients without an appointment.[15] UDOH, Medicaid published a website in 2009, www.health.utah.gov/safetowait, that explains when to use primary care, urgent care or ED care. Programs and policies to expand health insurance coverage may also reduce ED use. Uninsured patients do not tend to present at the ED with less acute conditions than insured patients. However, people without insurance lack preventive care and early treatment at physician offices, which can lead to becoming sicker and requiring ED care more frequently than insured individuals.[10, 18]

Point of Access to Medical Care: Percentage of Persons Whose Usual Point of Access to Medical Care Was a Hospital Emergency Department (ED) or an Urgent Care Center, 2006-2008

Race/Ethnicity	Sample Size	Total Population	#Usually with ED Care	Crude Rate *(95% CI Range)*	Age-adjusted Rate* *(95% CI Range)*	Sig.**
All Utahns	28,320	2,699,554	183,605	6.8% (6.2%- 7.5%)	6.6% (6.0% - 7.3%)	n/a
American Indian/Alaska Native	307	38,517	6,439	16.7% (6.5%- 36.7%)	14.6% (6.2% - 30.5%)	
Asian	230	59,078	2,639	4.5% (1.7%- 11.2%)	6.1% (2.3% - 15.2%)	
Black or African American	146	40,388	4,562	11.3% (4.9%- 24.1%)	8.1% (3.6% - 17.5%)	
Native Hawaiian/Pacific Islander	150	22,199	2,599	11.7% (5.5%- 23.3%)	8.6% (4.1% - 17.2%)	
White	24,649	2,539,372	173,729	6.8% (6.2%- 7.6%)	6.6% (6.0% - 7.3%)	
Hispanic or Latino	1,524	314,287	23,075	7.4% (5.2%- 10.3%)	8.7% (6.3% - 12.0%)	
White, Non-Hispanic	23,711	2,241,726	151,633	6.8% (6.1%- 7.5%)	6.5% (5.9% - 7.2%)	
Other, Non-Hispanic	194	143,540	4,309	3.0% (1.1%- 7.7%)	4.0% (1.4% - 10.5%)	

Source: Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
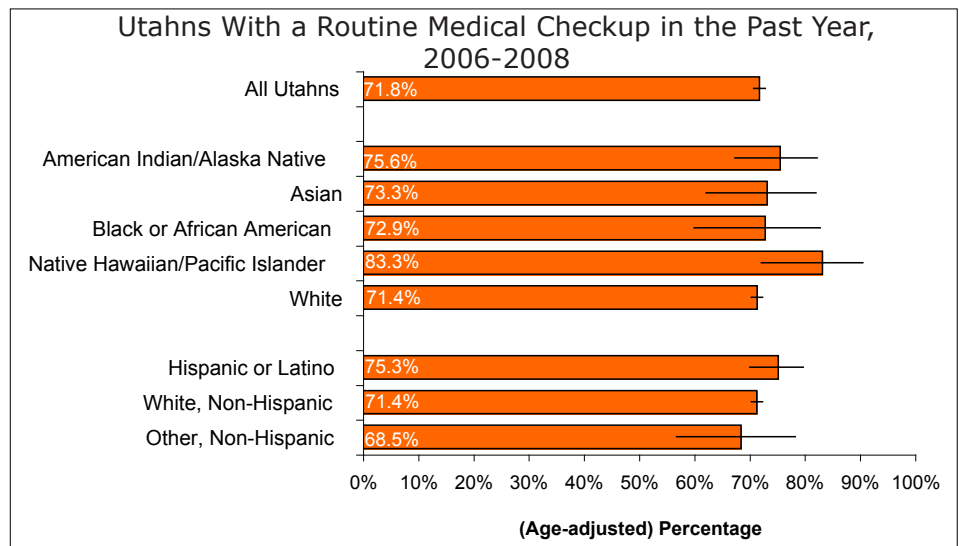
Contact: UDOH Center for Multicultural Health, 1-888-222-2542, http://www.health.utah.gov/cmh

Early Prenatal Care

Why Is It Important?
Women who receive early and consistent prenatal care increase their likelihood of giving birth to a healthy child. Prenatal care during the first trimester provides early opportunities to identify high-risk pregnancies and intervene to reduce the risk of complications.[127]

Utah First Trimester Prenatal Care, 2008

Race/Ethnicity	Percentage
All Utah Live Births	79.1%
American Indian/Alaska Native	56.2%
Asian	75.2%
Black or African American	61.2%
Native Hawaiian/Pacific Islander	48.1%
White	80.5%
Hispanic or Latino	63.4%
Non-Hispanic	82.5%

Percentage of Live Births

How Are We Doing?
- In 2008, 79.1% of all Utah live births received prenatal care during the first trimester of pregnancy.
- Utah infants had a significantly lower rate of early prenatal care than infants nationwide.[127]
- American Indian/Alaska Native, Asian, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latino Utahns had significantly lower rates of early prenatal care than all Utahns.
- White and non-Hispanic Utah infants had significantly higher rates of early prenatal care than all Utahns.
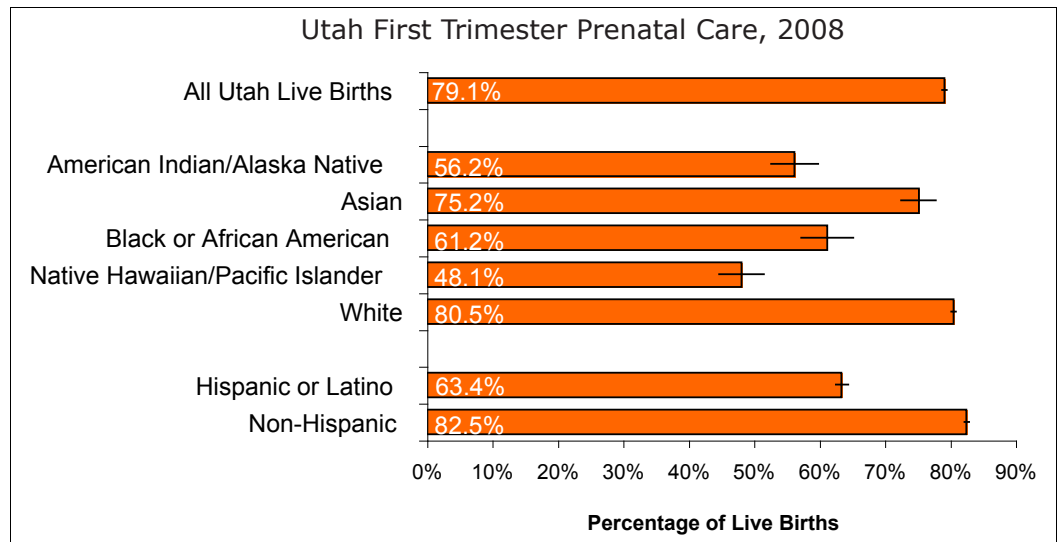
How Can We Improve?
Pregnant women should see their doctors before the 13th week of pregnancy and have at least 13 prenatal care visits during their pregnancies. The UDOH, Medicaid program offers prenatal Medicaid to women within income guidelines. Women who do not qualify for Medicaid at other times may qualify during pregnancy. UDOH, Baby Your Baby distributes temporary Medicaid cards to eligible women to cover outpatient prenatal services until their Medicaid application is processed. To obtain a temporary Medicaid card, women must first have their pregnancies confirmed by a doctor or clinic. Most local health departments can provide low-cost pregnancy testing. Contact the UDOH, Baby Your Baby program for more information at www.babyyourbaby.org and 1-800-826-9662. The UDOH, Maternal and Infant Health Program provides information about clinics that offer prenatal care on a low-cost or sliding scale basis.

Percentage of Utah Infants with Prenatal Care During the First Trimester of Pregnancy, 2008

Race/Ethnicity	# With Early Care	Total Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Live Births	43,997	55,605	79.1% (78.8%- 79.5%)	n/a
American Indian/Alaska Native	413	735	56.2% (52.6%- 59.8%)	↓
Asian	793	1,054	75.2% (72.5%- 77.8%)	↓
Black or African American	349	570	61.2% (57.2%- 65.2%)	↓
Native Hawaiian/Pacific Islander	398	828	48.1% (44.7%- 51.5%)	↓
White	41,520	51,573	80.5% (80.2%- 80.9%)	↑
Hispanic or Latino	6,022	9,493	63.4% (62.5%- 64.4%)	↓
Non-Hispanic	37,764	45,761	82.5% (82.2%- 82.9%)	↑

Source: Utah Birth Certificate Database
*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Colon Cancer Screening

Why Is It Important?

Colorectal cancer is the second leading cause of cancer-related death in Utah and the U.S.[19,20] Screening for this cancer is important as deaths can be substantially reduced when precancerous polyps are detected early and removed. The chance of surviving colorectal cancer is better than 90% when the cancer is diagnosed before it has gone beyond the intestinal wall.[19]

How Are We Doing?

- Among Utah adults age 50 and older from 2003 through 2008, 50.8% had been screened for colon cancer within the past five years.
- Colon cancer screening rates have improved significantly since 2000, when only 32.1% of Utahns in this age group had been screened.[132]
- Hispanic/Latino Utahns had significantly lower rates of screening for colorectal cancer than Utahns statewide.

Colon Cancer Screening, Utahns Age 50+, 2003-2008

All Utah Adults	50.8%
American Indian/Alaska Native	48.0%
Asian	44.9%
Black or African American	47.4%
Native Hawaiian/Pacific Islander	55.7%
White	51.2%
Hispanic or Latino	38.0%
White, Non-Hispanic	51.4%
Other, Non-Hispanic	49.6%

Percentage of Adults 50+

How Can We Improve?

Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk. Persons at high risk may need to begin screening at a younger age. The American Cancer Society advises each individual to discuss risk factors and screening options with his or her health care provider. Routine screening can include either an annual fecal occult blood test (FOBT) and/ or flexible sigmoidoscopy every five years, colonoscopy every 10 years, or barium enema every five to 10 years.[19] Many studies suggest that racial and ethnic minorities tend to be diagnosed at later stages of cancer progression.[21] The Utah Cancer Action Network conducts English and Spanish language media campaigns to encourage Utahns over age 50 to seek colon cancer screening.

Percentage of Utahns Age 50 and Over Who Reported Having Had a Sigmoidoscopy or Colonoscopy in the Past Five Years, 2003-2008

Race/Ethnicity	Sample Size	Total Population Age 50+	Number Age 50+ with Sigmoid/ Colonoscopy	Crude Rate (95% CI Range)	Sig.*
All Utahns Age 50+	13,176	557,721	283,156	50.8% (49.7% - 51.8%)	n/a
American Indian/Alaska Native	108	5,253	2,522	48.0% (35.6% - 60.7%)	
Asian	84	10,350	4,652	44.9% (33.3% - 57.2%)	
Black or African American	46	3,654	1,733	47.4% (31.5% - 63.9%)	
Native Hawaiian/Pacific Islander	19	2,625	1,462	55.7% (29.1% - 79.4%)	
White	12,516	535,839	274,425	51.2% (50.1% - 52.3%)	
Hispanic or Latino	493	29,709	11,275	38.0% (32.8% - 43.4%)	↓
White, Non-Hispanic	12,251	507,437	260,844	51.4% (50.3% - 52.5%)	
Other, Non-Hispanic	349	20,575	10,199	49.6% (42.9% - 56.2%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Only age-specific rates were reported for this measure due to the limited age group reported.

* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

Pap Test

Why Is It Important?

Cervical cancer is one of the most curable cancers if detected early through routine screening. Nearly all cases of cervical cancer are caused by infection with high-risk types of the human papilloma virus (HPV). As these viruses are transmitted through sexual contact, any woman who is sexually active is at risk for developing cervical cancer. Other risk factors include having sexual relations at an early age, having multiple sex partners or partners with many other partners, and cigarette smoking.[22]

Pap in Past 3 Years, Utah Women, 2004, 2006 and 2008

Group	Percentage
All Utah Adults	76.3%
American Indian/Alaska Native	66.5%
Asian	70.7%
Black or African American	76.0%
Native Hawaiian/Pacific Islander	76.3%
White	76.4%
Hispanic or Latino	76.9%
White, Non-Hispanic	76.5%
Other, Non-Hispanic	68.7%

(Age-adjusted) Percentage of Women 18+

How Are We Doing?

- Among all Utah women age 18 and over in 2004, 2006 and 2008, 76.3% had received a Pap test in the past three years (age-adjusted rate).
- There were no statistically significant differences in Pap test rates by race or ethnicity.

How Can We Improve?

The American Cancer Society recommends that cervical screening begin about three years after a woman begins having intercourse but no later than 21 years of age. Cervical screening should be performed every year with conventional Pap tests or every two years with liquid-based Pap tests. Beginning at age 30, women who have had three normal test results in a row may undergo screening every two to three years.[23] Females ages 9-26 can also receive the HPV vaccine, which protects against cervical cancer. Even women who have been vaccinated should continue to receive regular Pap tests.[24] The UDOH, Utah Cancer Control Program offers free cervical cancer screening and discount HPV vaccine to eligible women. Women who receive these screenings and lack health insurance coverage may be eligible for Medicaid benefits for the duration of their cancer treatment.
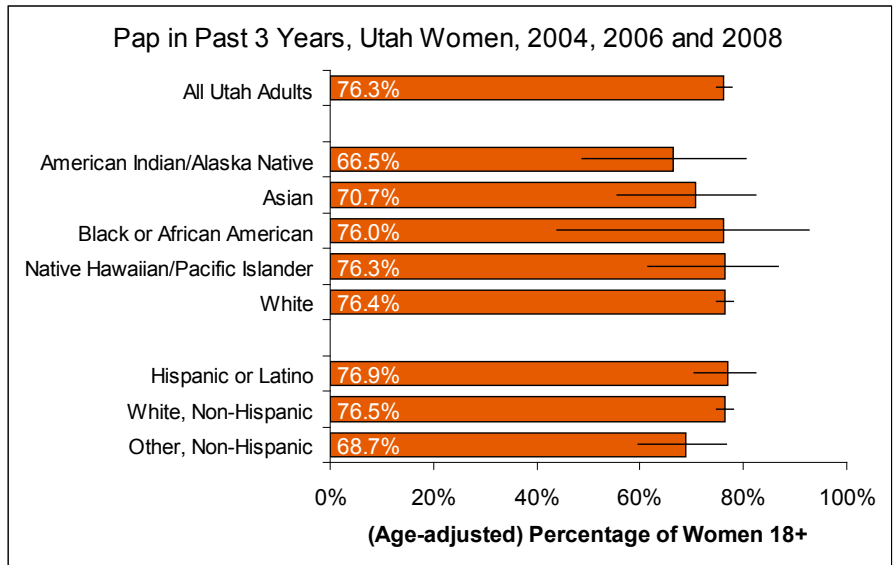
Percentage of Utah Women (Age 18 and Over) Who Reported Having Had a Pap Smear in the Past Three Years, 2004, 2006, 2008

Race/Ethnicity	Sample Size	Total Adult Women	# of Women With Pap	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Adult Utah Women	6,207	895,695	676,143	75.5% (73.6%- 77.3%)	76.3% (74.8%- 77.7%)	n/a
American Indian/Alaska Native	82	11,919	7,714	64.7% (45.0%- 80.4%)	66.5% (48.8%- 80.6%)	
Asian	68	21,776	15,043	69.1% (52.3%- 82.0%)	70.7% (55.7%- 82.3%)	
Black or African American	15	8,286	7,167	86.5% (61.7%- 96.2%)	76.0% (43.9%- 92.8%)	
Native Hawaiian/Pacific Islander	33	6,089	4,319	70.9% (50.7%- 85.3%)	76.3% (61.5%- 86.7%)	
White	5,664	847,625	639,244	75.4% (73.4%- 77.3%)	76.4% (74.8%- 77.9%)	
Hispanic or Latino	466	80,281	64,329	80.1% (73.9%- 85.2%)	76.9% (70.4%- 82.3%)	
White, Non-Hispanic	5,482	771,374	581,750	75.4% (73.4%- 77.3%)	76.5% (74.9%- 78.0%)	
Other, Non-Hispanic	226	44,040	30,079	68.3% (58.7%- 76.5%)	68.7% (59.5%- 76.7%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
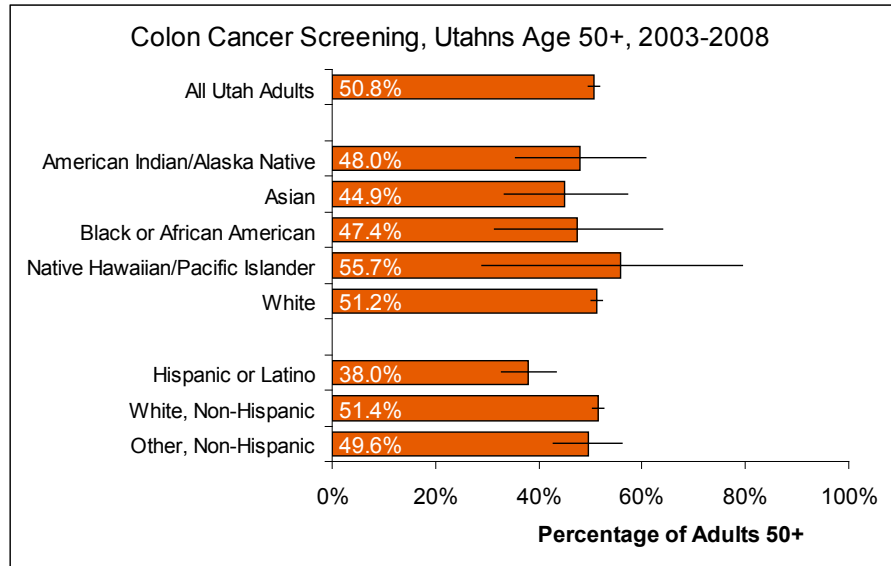
Mammogram

Why Is It Important?
Breast cancer is the leading cause of cancer death among Utah women. Deaths from breast cancer can be substantially reduced if the disease is discovered at an early stage. Mammography is currently the best method for detecting cancer early.[25]

How Are We Doing?
- During 2004 and 2006-2008, the percentage of Utah women age 40 and over who reported receiving a mammogram within the last two years was 65.8% (age-adjusted rate).
- American Indian/Alaska Native Utahns had a significantly lower rate of breast cancer screening.

Mammogram, Utah Women 40+, 2004, 2006-2008

	(Age-adjusted) Percentage of Women 40+
All Utah Adults	65.8%
American Indian/Alaska Native	50.9%
Asian	67.8%
Black or African American	66.8%
Native Hawaiian/Pacific Islander	63.7%
White	65.9%
Hispanic or Latino	66.2%
White, Non-Hispanic	65.7%
Other, Non-Hispanic	63.8%

How Can We Improve?
The American Cancer Society recommends that women age 40 and older have a mammogram every year. Women at high risk based on family history or prior radiation treatment should get a mammogram and an MRI (magnetic resonance imaging) every year beginning at age 30. Women should be told about the benefits, limitations, and potential harms linked with regular screening. A mammogram will miss some cancers and sometimes leads to follow-up of findings that are not cancer, including biopsies. But despite their limitations, they remain a very effective and valuable tool for decreasing suffering and death from breast cancer, so women can feel confident about the benefits associated with regular mammograms for finding cancer early.[26] The UDOH, Utah Cancer Control Program offers free mammograms to eligible women. Women who receive these screenings and lack health insurance coverage may be eligible for Medicaid benefits for the duration of their cancer treatment.

Percentage of Utah Women Age 40 and Over Who Reported Having a Mammogram in the Past Two Years, 2004, 2006-2008

Race/Ethnicity	Sample Size	Total # of Women 40+	# of Women Had Mamm.	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Women 40+	7,547	446,763	302,131	67.6% (66.3%- 68.9%)	65.8% (64.4% - 67.2%)	n/a
American Indian/Alaska Native	75	5,180	2,672	51.6% (36.7%- 66.2%)	50.9% (36.5% - 65.1%)	↓
Asian	57	9,635	6,534	67.8% (53.6%- 79.4%)	67.8% (53.4% - 79.4%)	
Black or African American	19	3,036	2,009	66.2% (35.9%- 87.2%)	66.8% (39.0% - 86.4%)	
Native Hawaiian/Pacific Islander	22	2,335	1,474	63.1% (38.1%- 82.6%)	63.7% (37.7% - 83.6%)	
White	7,091	426,577	289,886	68.0% (66.6%- 69.3%)	65.9% (64.4% - 67.4%)	
Hispanic or Latino	353	29,036	19,349	66.6% (60.3%- 72.5%)	66.2% (59.8% - 72.0%)	
White, Non-Hispanic	6,921	398,905	270,357	67.8% (66.4%- 69.1%)	65.7% (64.2% - 67.2%)	
Other, Non-Hispanic	229	18,821	12,023	63.9% (55.8%- 71.3%)	63.8% (55.7% - 71.3%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
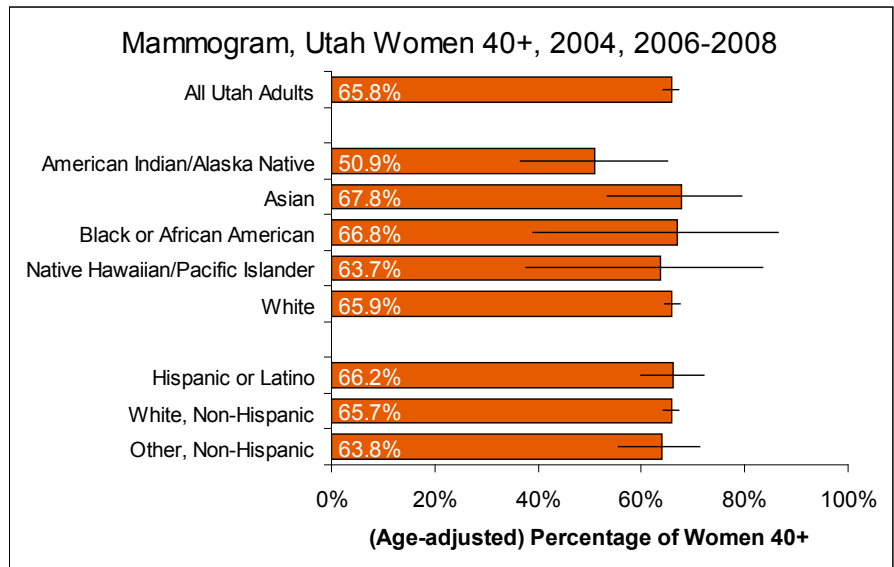
Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

Prostate Cancer Screening

Why Is It Important?

Prostate cancer is the second most commonly occurring form of cancer for men, after skin cancer, and is the second leading cause of cancer death for men in Utah and the U.S.[27] One screening test commonly used is a blood test for a substance called prostate-specific antigen, or PSA. Together with a digital rectal exam (DRE), these tests can detect many cancers that have not caused symptoms. However, it is not yet known whether early detection results in reduced mortality from this disease. There are a relatively large number of false-positive PSA test results which may lead to unnecessary medical procedures.[28]

PSA Test, Utah Males Age 40+, 2003, 2004, 2006, 2008

Race/Ethnicity	Percentage
All Utah Adults	54.0%
American Indian/Alaska Native	42.3%
Asian	52.0%
Black or African American	55.8%
Native Hawaiian/Pacific Islander	41.1%
White	55.2%
Hispanic or Latino	39.5%
White, Non-Hispanic	55.2%
Other, Non-Hispanic	48.6%

(Age-adjusted) Percentage of Men 40+

How Are We Doing?

- Between 2003 and 2008, among all Utah men age 40 and over, 54.0% had received a PSA test (age-adjusted rate).
- Utah Hispanic/Latino men had a significantly lower rate of PSA tests.

How Can We Improve?

The American Cancer Society recommends that health care professionals discuss the potential benefits and limitations of prostate cancer screening beginning when male patients are 50, and offer a PSA test and DRE yearly to men who are at average risk of prostate cancer and have at least a 10-year life expectancy. Those men who favor testing should be tested. This discussion should take place starting at age 45 for African American men and men who have had a father, brother, or son diagnosed with prostate cancer before age 65 and at age 40 for men with several first-degree relatives who had prostate cancer at an early age. Routine testing of all men is not recommended.[23]

Percentage of Utah Men Age 40 and Over Who Reported Ever Having a PSA Test, 2003, 2004, 2006 and 2008

Race/Ethnicity	Sample Size	Total Number of Men 40+	# Men 40+ With PSA Test	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Men Age 40+	5,157	425,669	246,796	58.0% (56.2%- 59.7%)	54.0% (52.4% - 55.6%)	n/a
American Indian/Alaska Native	49	4,907	2,165	44.1% (28.1%- 61.5%)	42.3% (30.8% - 54.7%)	
Asian	45	7,731	3,384	43.8% (28.1%- 60.8%)	52.0% (37.3% - 66.3%)	
Black or African American	27	4,116	2,454	59.6% (38.0%- 78.1%)	55.8% (37.1% - 72.9%)	
Native Hawaiian/Pacific Islander	16	2,577	914	35.5% (15.1%- 63.0%)	41.1% (22.1% - 63.3%)	
White	4,818	406,338	242,915	59.8% (58.0%- 61.5%)	55.2% (53.5% - 56.8%)	
Hispanic or Latino	222	31,531	11,091	35.2% (27.9%- 43.2%)	39.5% (32.4% - 47.2%)	↓
White, Non-Hispanic	4,727	376,428	225,502	59.9% (58.1%- 61.7%)	55.2% (53.5% - 56.9%)	
Other, Non-Hispanic	171	17,710	8,625	48.7% (39.7%- 57.8%)	48.6% (40.6% - 56.7%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.
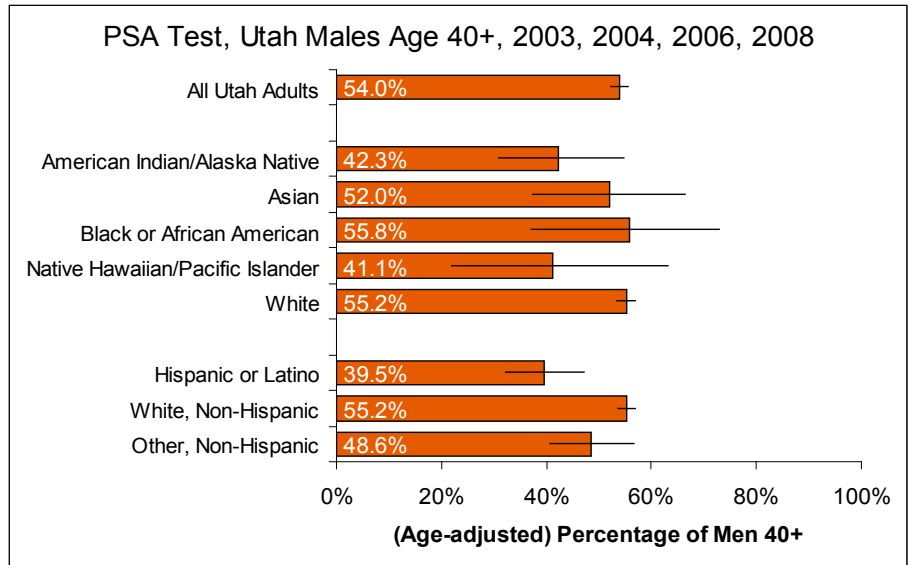
*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Blood Cholesterol Screening

Why Is It Important?

High levels of cholesterol in the blood can build up in the blood vessel walls, blocking blood flow to the heart, brain, and other important organs. Most people do not have any symptoms of high blood cholesterol. High blood cholesterol is diagnosed by checking blood levels of several important types of fat. Treatment of high blood cholesterol can reduce risk of cardiovascular disease.[29]

How Are We Doing?

- During the years the survey question was asked, about two thirds of Utah adults age 18 and over had their cholesterol checked in the past five years.
- American Indian/Alaska Native and Hispanic/Latino Utahns had significantly lower age-adjusted rates of cholesterol screening.
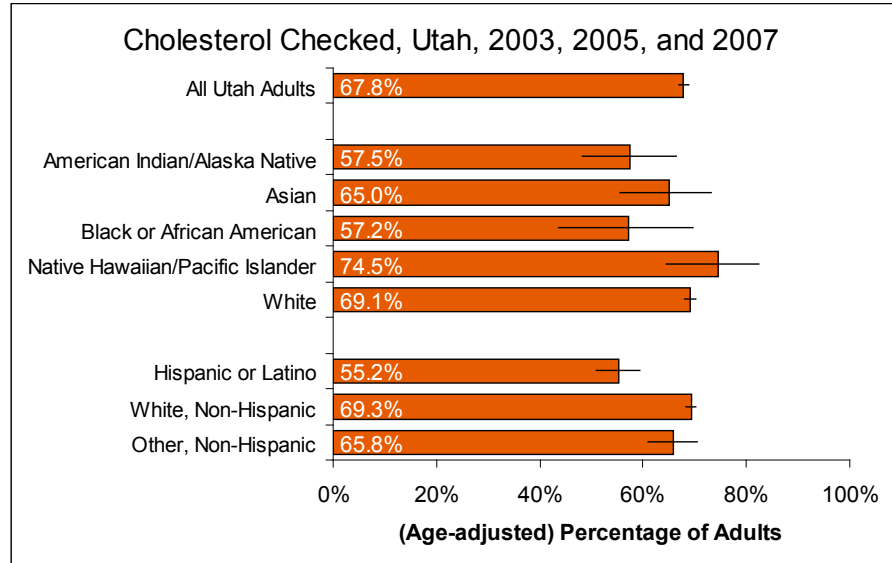
How Can We Improve?

The National Heart, Lung, and Blood Institute recommends that adults age 20 or older be screened for high blood cholesterol at least every five years.[30] The American Heart Association recommends that physicians determine total and HDL blood cholesterol levels.[31] The UDOH, Heart Disease and Stroke Prevention Program works with health care providers, insurance companies, and employers to increase opportunities for cholesterol screening.

Cholesterol Checked, Utah, 2003, 2005, and 2007

Race/Ethnicity	Percentage
All Utah Adults	67.8%
American Indian/Alaska Native	57.5%
Asian	65.0%
Black or African American	57.2%
Native Hawaiian/Pacific Islander	74.5%
White	69.1%
Hispanic or Latino	55.2%
White, Non-Hispanic	69.3%
Other, Non-Hispanic	65.8%

(Age-adjusted) Percentage of Adults

Percentage of Utah Adults (Age 18 and Over) Who Reported Having Their Cholesterol Checked in the Past Five Years,* 2003, 2005, and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# Had Cholesterol Checked	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	13,748	1,781,429	1,148,196	64.5% (63.3%- 65.6%)	67.8% (66.9% - 68.8%)	n/a
American Indian/Alaska Native	150	23,796	12,028	50.5% (39.2%- 61.8%)	57.5% (48.3% - 66.3%)	↓
Asian	126	40,656	23,200	57.1% (45.7%- 67.7%)	65.0% (55.7% - 73.3%)	
Black or African American	68	19,213	8,940	46.5% (31.9%- 61.8%)	57.2% (43.6% - 69.7%)	
Native Hawaiian/Pacific Islander	52	12,877	6,975	54.2% (37.8%- 69.7%)	74.5% (64.5% - 82.5%)	
White	12,673	1,684,887	1,122,099	66.6% (65.4%- 67.8%)	69.1% (68.1% - 70.1%)	↑
Hispanic or Latino	886	176,650	78,915	44.7% (40.3%- 49.2%)	55.2% (50.9% - 59.4%)	↓
White, Non-Hispanic	12,326	1,517,124	1,016,097	67.0% (65.8%- 68.2%)	69.3% (68.3% - 70.3%)	↑
Other, Non-Hispanic	477	87,655	49,288	56.2% (50.1%- 62.2%)	65.8% (60.9% - 70.4%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Heart Disease and Stroke Prevention Program, 801-538-6142, http://www.hearthighway.org/

Health Care Services and Systems

Influenza Immunization, Adults

Why Is It Important?

Influenza (the flu) is a contagious respiratory illness caused by viruses. It can cause mild to severe illness, and at times lead to death. Every year in the United States, more than 200,000 people are hospitalized and about 36,000 people die from flu-related complications. People can spread flu before they have symptoms of sickness. The best way to prevent flu is by getting a flu vaccination. Different types and strains of flu virus circulate each year, so annual vaccination is necessary for protection.[32]

Flu Shot, Utah, 2003-2008

All Utah Adults	37.7%
American Indian/Alaska Native	39.6%
Asian	41.2%
Black or African American	38.7%
Native Hawaiian/Pacific Islander	39.3%
White	38.1%
Hispanic or Latino	31.9%
White, Non-Hispanic	38.2%
Other, Non-Hispanic	38.8%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- From 2003 to 2008, 37.7% of Utah adults age 18 and over reported receiving a flu shot within the past year (age-adjusted rate).
- Hispanic/Latino Utahns had a significantly lower rate of influenza immunization than all Utahns.
- Note: These rates do not include people who may have been immunized using nasal spray instead of a shot. UDOH began tracking utilization of nasal spray flu vaccine in 2008.
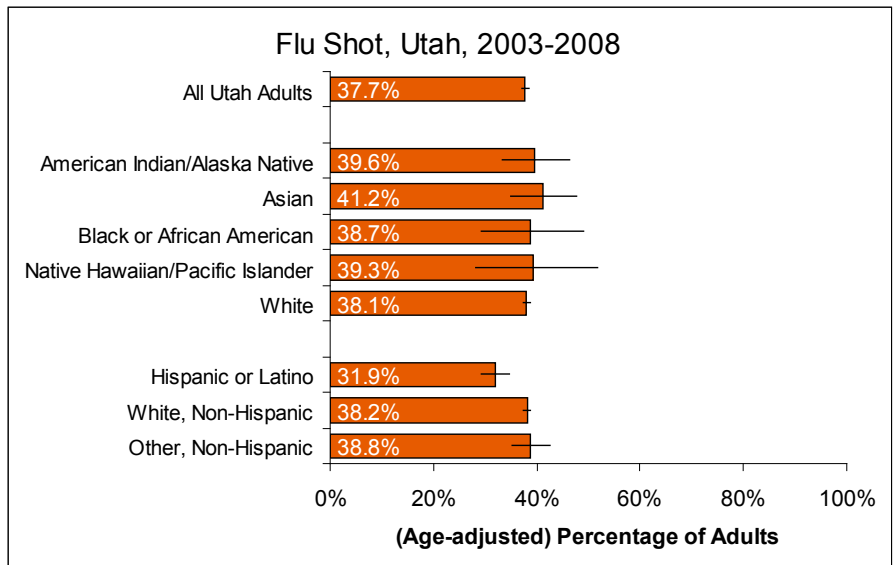
How Can We Improve?

During years when enough vaccine is available, everyone over six months of age can be protected from flu by getting vaccinated beginning in September or as soon as vaccine is available in fall or winter. Vaccine can be administered as a shot or a nasal spray. During years when vaccine supplies are limited or delayed, only those who at are at high risk for flu complications and their caregivers can receive the vaccine: children ages six months-18 years, pregnant women, people over age 50, people with certain chronic medical conditions, residents of long-term care facilities, health care workers, and people who live with infants under six months old and other high-risk individuals. Good hygiene can also help prevent spread of flu.[32] The annual UDOH, Immunization Program Flu Vaccine Locator, www.immunize-utah.org, and Immunization Hotline,1-800-275-0659, help Utahns find vaccine providers.

Percentage of Utah Adults (Age 18 and Over) Who Reported Having a Flu Shot in the Past 12 Months, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	Number with Flu Shot	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,834	1,781,429	638,392	35.8% (35.1%- 36.6%)	37.7% (37.0%- 38.4%)	n/a
American Indian/Alaska Native	346	23,796	8,243	34.6% (28.1%- 41.8%)	39.6% (33.2%- 46.4%)	
Asian	279	40,656	14,105	34.7% (28.0%- 42.0%)	41.2% (34.9%- 47.8%)	
Black or African American	131	19,213	6,834	35.6% (25.6%- 47.0%)	38.7% (29.3%- 49.1%)	
Native Hawaiian/Pacific Islander	112	12,877	5,104	39.6% (29.0%- 51.4%)	39.3% (28.1%- 51.8%)	
White	27,451	1,684,887	618,716	36.7% (36.0%- 37.5%)	38.1% (37.4%- 38.8%)	
Hispanic or Latino	1,937	176,650	45,517	25.8% (23.3%- 28.4%)	31.9% (29.2%- 34.6%)	↓
White, Non-Hispanic	26,692	1,517,124	560,531	36.9% (36.2%- 37.7%)	38.2% (37.4%- 38.9%)	
Other, Non-Hispanic	1,046	87,655	29,954	34.2% (30.4%- 38.1%)	38.8% (35.2%- 42.5%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Pneumonia Immunization, Adults 65+

Why Is It Important?

Pneumococcal disease is a serious infection of the lungs, blood, or outer lining of the brain. Each year it kills more people in the United States than all other vaccine-preventable diseases combined. The most common form of serious pneumococcal disease among adults is pneumonia.[33]

How Are We Doing?

- From 2003 to 2008, 67.1% of Utah adults age 65 and over reported that they had received a pneumococcal vaccine during their lifetime.
- Hispanic/Latino Utahns had significantly lower rates of pneumococcal immunization than all Utahns.
- Lifetime pneumococcal vaccination rates for Utah adults 65+ have significantly improved since 1997 when data were first collected, but rates have essentially been the same since 2001.[33]
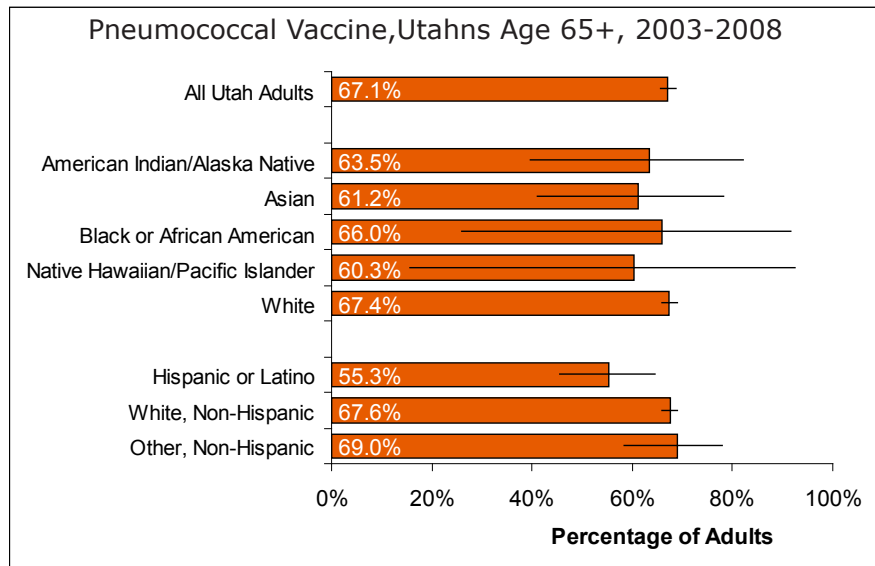
How Can We Improve?

The Centers for Disease Control and Prevention recommends the pneumococcal vaccine for people age 65 and older; people with serious long-term health problems such as heart disease, sickle cell disease, alcoholism, lung disease (not including asthma), diabetes, or liver cirrhosis; and people with low resistance to infection due to HIV infection or AIDS, cancer or cancer treatment, long-term steroid medicines, bone marrow or organ transplants, and kidney or spleen problems.[34] The UDOH, Immunization Program provides an Immunization Hotline at 1-800-275-0659 to help Utahns locate vaccine providers. Pneumococcal vaccinations are covered for seniors with Medicare Part B.

Pneumococcal Vaccine, Utahns Age 65+, 2003-2008

Group	Percentage
All Utah Adults	67.1%
American Indian/Alaska Native	63.5%
Asian	61.2%
Black or African American	66.0%
Native Hawaiian/Pacific Islander	60.3%
White	67.4%
Hispanic or Latino	55.3%
White, Non-Hispanic	67.6%
Other, Non-Hispanic	69.0%

Percentage of Utah Adults (Age 65 and over) Who Reported Having a Pneumococcal Vaccination, 2003-2008

Race/Ethnicity	Sample Size	Total Population age 65+	Number Immunized	Crude Rate (95% CI Range)	Sig.*
All Utah Adults Age 65+	5,821	217,364	145,854	67.1% (65.6%- 68.6%)	n/a
American Indian/Alaska Native	32	1,599	1,015	63.5% (39.7%- 82.2%)	
Asian	29	3,498	2,140	61.2% (41.1%- 78.1%)	
Black or African American	12	1,020	673	66.0% (25.9%- 91.5%)	
Native Hawaiian/Pacific Islander	4	744	449	60.3% (15.6%- 92.6%)	
White	5,584	210,504	141,865	67.4% (65.9%- 68.9%)	
Hispanic or Latino	177	8,933	4,942	55.3% (45.7%- 64.6%)	↓
White, Non-Hispanic	5,463	201,916	136,411	67.6% (66.0%- 69.1%)	
Other, Non-Hispanic	133	6,514	4,494	69.0% (58.3%- 77.9%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Only age-specific rates were reported for this measure due to the limited age group reported.

* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Immunization Program, 801-538-9540, http://www.immunize-utah.org
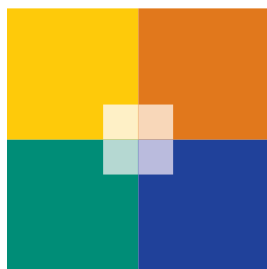
RISK FACTORS FOR ILLNESS

Overweight or Obese

Why Is It Important?

Overweight and obesity contribute to 300,000 deaths each year in the U.S. and are associated with many chronic illnesses including heart disease, certain types of cancer, diabetes, stroke, arthritis and depression.[35]

How Are We Doing?

- From 2003-2008, 58.4% of Utah adults were overweight or obese (age-adjusted rate).
- American Indian/Alaska Native, Black/African American, Native Hawaiian/Pacific Islander, and Hispanic/Latino Utahns had significantly higher rates of obesity/overweight than all Utahns.
- Asian Utahns had a significantly lower rate of obesity and overweight than all Utahns.
- The percentage of Utah adults who were overweight or obese has increased steadily during the past two decades, from 35.0% in 1989 to 60.1% in 2008.[36]
- The Utah overweight and obesity rate is only slightly lower than the U.S. rate. As in Utah, the U.S. overweight and obesity rate has been increasing steadily over the past two decades.[36]

Overweight or Obese, Utah, 2003-2008

Group	Percentage
All Utah Adults	58.4%
American Indian/Alaska Native	75.7%
Asian	35.6%
Black or African American	69.7%
Native Hawaiian/Pacific Islander	78.9%
White	57.7%
Hispanic or Latino	66.0%
White, Non-Hispanic	57.6%
Other, Non-Hispanic	60.7%

(Age-adjusted) Percentage of Adults

How Can We Improve?

Obese persons should lose about 1 to 2 pounds each week, up to 10% of initial body weight over 6 months, through healthy eating and physical activity. Faster weight loss does not achieve better long-term results.[37] In 2008, the U.S. Centers for Disease Control and Prevention began funding the UDOH, Physical Activity, Nutrition, and Obesity (PANO) program to promote behaviors that contribute to healthy weight: physical activity, fruit and vegetable consumption, and breastfeeding; and discourage excessive TV viewing and consumption of sugary beverages and high-energy-dense foods (high in fat or low in water). PANO activities include promoting physical activity and healthy foods at elementary schools, media campaigns encouraging families to adopt healthy lifestyles, tracking height and weight trends, recognizing communities and worksites that promote health and encouraging communities to accommodate walking and biking safely.

Percentage of Utah Adults (Age 18 and Over) Who Were Overweight or Obese,* 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	Number Overweight or Obese	Crude Rate (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utah Adults	28,866	1,781,429	1,005,438	56.4% (55.6% - 57.2%)	58.4% (57.7% - 59.1%)	n/a
American Indian/Alaska Native	336	23,796	17,249	72.5% (65.3% - 78.7%)	75.7% (69.5% - 81.0%)	↑
Asian	268	40,656	13,168	32.4% (25.9% - 39.7%)	35.6% (29.3% - 42.4%)	↓
Black or African American	123	19,213	12,737	66.3% (54.6% - 76.3%)	69.7% (59.3% - 78.4%)	↑
Native Hawaiian/Pacific Islander	110	12,877	9,672	75.1% (63.9% - 83.7%)	78.9% (68.8% - 86.4%)	↑
White	26,701	1,684,887	941,698	55.9% (55.1% - 56.7%)	57.7% (56.9% - 58.4%)	
Hispanic or Latino	1,723	176,650	109,964	62.2% (59.0% - 65.4%)	66.0% (63.0% - 68.8%)	↑
White, Non-Hispanic	25,996	1,517,124	847,838	55.9% (55.0% - 56.7%)	57.6% (56.8% - 58.3%)	↓
Other, Non-Hispanic	1,007	87,655	50,245	57.3% (52.9% - 61.6%)	60.7% (56.9% - 64.4%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Overweight or obese criteria is BMI > or = 25. Body mass index (BMI) is calculated by dividing weight in kilograms by height in meters squared.

**Age-adjusted to the U.S. 2000 standard population

*** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
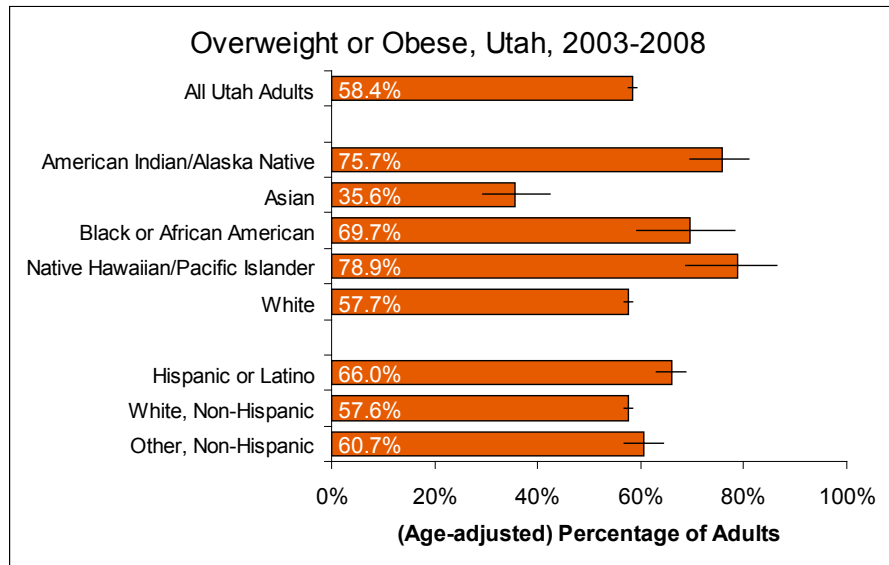
Contact: UDOH Physical Activity, Nutrition, & Obesity Program, 801-538-6229 http://health.utah.gov/obesity/
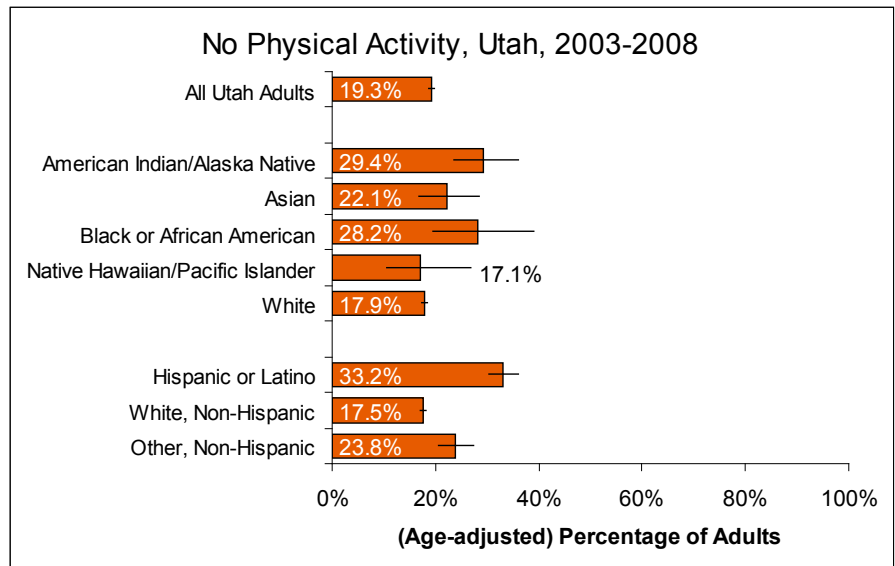
No Physical Activity

Why Is It Important?

Physical activity helps prevent heart disease, helps control cholesterol levels and diabetes, slows bone loss associated with advancing age, lowers the risk of certain cancers, and helps reduce anxiety and depression.[35] Only a few lifestyle choices have as large an effect on mortality as physical activity. Even low amounts of physical activity reduce the risk of premature death. The relative risk of dying prematurely continues to be lower as physical activity increases.[38]

No Physical Activity, Utah, 2003-2008

Group	Percentage
All Utah Adults	19.3%
American Indian/Alaska Native	29.4%
Asian	22.1%
Black or African American	28.2%
Native Hawaiian/Pacific Islander	17.1%
White	17.9%
Hispanic or Latino	33.2%
White, Non-Hispanic	17.5%
Other, Non-Hispanic	23.8%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- From 2003-2008, 19.3% of Utah adults reported they were physically inactive (age-adjusted rate).
- American Indian/Alaska Native, Black/African American, and Hispanic/Latino Utahns had significantly higher rates of physical inactivity.
- Non-Hispanic White Utahns had a significantly lower rate of physical inactivity.

How Can We Improve?

The U.S. Department of Health and Human Services recommends that adults participate in light or moderate physical activity for at least 30 minutes five or more times per week or in vigorous physical activity for at least 20 minutes three or more times per week.[38] Physical activity need not be of vigorous intensity to improve health. Every increase in activity adds some benefit. A moderate amount of activity can be obtained in a 30-minute brisk walk, 30 minutes of lawn mowing or raking leaves, a 15-minute run, or 45 minutes of playing volleyball, and such activities can be varied from day to day. The UDOH, Physical Activity, Nutrition and Obesity (PANO) Program works with local health departments and other partners to improve or develop community environments where people can walk and bike safely and hosts a website, www.utahwalks.org/, with information on places to walk and bike throughout Utah.

Percentage of Utah Adults (Age 18 and Over) Who Reported No Physical Activity Outside of Work in the Past Month, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	# With No Physical Activity	Crude Rate *(95% CI Range)*	Age-adjusted Rate* *(95% CI Range)*	Sig.**
All Utah Adults	29,905	1,781,429	331,335	18.6% (18.0%- 19.2%)	19.3% (18.7% - 19.8%)	n/a
American Indian/Alaska Native	340	23,796	6,304	26.5% (20.9%- 33.0%)	29.4% (23.5% - 36.0%)	↑
Asian	281	40,656	7,834	19.3% (14.4%- 25.3%)	22.1% (16.9% - 28.3%)	
Black or African American	132	19,213	5,495	28.6% (18.9%- 40.9%)	28.2% (19.5% - 39.0%)	↑
Native Hawaiian/Pacific Islander	112	12,877	2,079	16.1% (10.0%- 25.1%)	17.1% (10.5% - 26.8%)	
White	27,517	1,684,887	292,315	17.3% (16.8%- 17.9%)	17.9% (17.3% - 18.4%)	↓
Hispanic or Latino	1,947	176,650	54,963	31.1% (28.3%- 34.0%)	33.2% (30.3% - 36.1%)	↑
White, Non-Hispanic	26,755	1,517,124	257,816	17.0% (16.4%- 17.6%)	17.5% (16.9% - 18.1%)	↓
Other, Non-Hispanic	1,044	87,655	19,412	22.1% (18.9%- 25.7%)	23.8% (20.7% - 27.3%)	↑

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
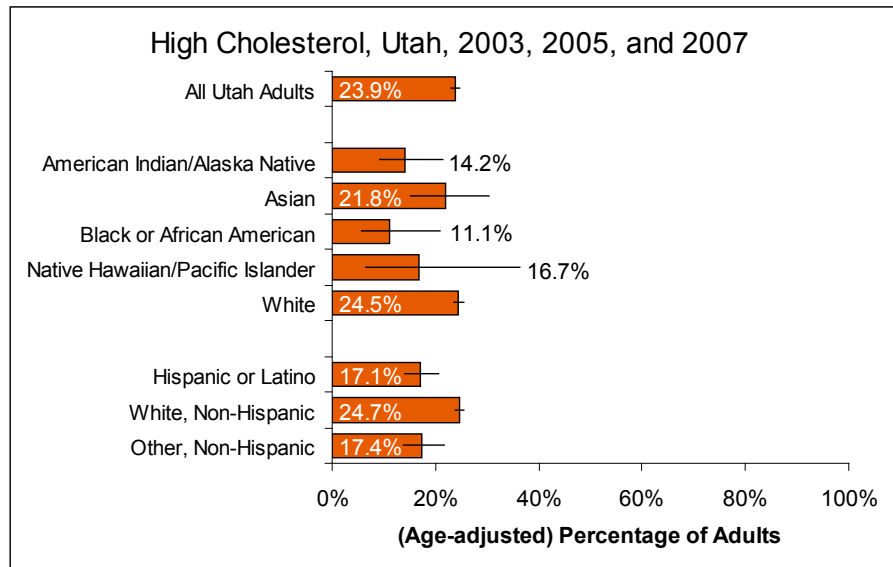
High Cholesterol

Why Is It Important?
High levels of cholesterol in the blood can build up in the blood vessel walls, blocking blood flow to the heart, brain, and other important organs. Treatment of high blood cholesterol leads to a lower risk of cardiovascular disease.[29] High blood cholesterol is 240 mg/dL or greater and borderline high cholesterol is 200 to 239 mg/dL.[30] Low reported high cholesterol may be due to either actual low prevalence of high cholesterol or to low rates of cholesterol screening.

High Cholesterol, Utah, 2003, 2005, and 2007

All Utah Adults	23.9%
American Indian/Alaska Native	14.2%
Asian	21.8%
Black or African American	11.1%
Native Hawaiian/Pacific Islander	16.7%
White	24.5%
Hispanic or Latino	17.1%
White, Non-Hispanic	24.7%
Other, Non-Hispanic	17.4%

(Age-adjusted) Percentage of Adults

How Are We Doing?
- In 2003, 2005, and 2007, 23.9% of Utah adults reported that they had been told by a doctor that their cholesterol was high (age-adjusted rate).
- American Indian/Alaska Native, Black/African American, and Hispanic/Latino Utahns reported high cholesterol at significantly lower rates than Utahns statewide. These racial and ethnic groups also had the lowest rates of cholesterol screening, so these low rates are likely to reflect inadequate screening rather than low prevalence of high cholesterol.

How Can We Improve?
Behaviors that prevent or lower high blood cholesterol include eating a diet low in saturated fat and cholesterol, increasing physical activity, not smoking or drinking excessive alcohol, and maintaining a healthy weight. Obesity and diets high in saturated fat or cholesterol contribute to high levels of blood cholesterol. Since most people do not have any symptoms of high blood cholesterol, adults age 20 and older should be screened for high blood cholesterol at least every five years.[29,30] The Heart Disease and Stroke Prevention Program works with health care providers to help people with high cholesterol to control their risk of heart attack and stroke.

Percentage of Utah Adults (Age 18 and Over) Who Reported Having Been Told They Had High Cholesterol, 2003, 2005, and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# With High Cholesterol	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,176	1,781,429	377,371	21.2% (20.4%- 22.0%)	23.9% (23.1% - 24.7%)	n/a
American Indian/Alaska Native	155	23,796	2,402	10.1% (6.3%- 15.8%)	14.2% (9.1% - 21.4%)	↓
Asian	132	40,656	5,651	13.9% (8.9%- 21.0%)	21.8% (15.2% - 30.3%)	
Black or African American	70	19,213	1,173	6.1% (2.9%- 12.6%)	11.1% (5.6% - 20.9%)	↓
Native Hawaiian/Pacific Islander	54	12,877	1,143	8.9% (3.3%- 22.0%)	16.7% (6.6% - 36.3%)	
White	13,065	1,684,887	377,454	22.4% (21.5%- 23.3%)	24.5% (23.7% - 25.4%)	
Hispanic or Latino	910	176,650	19,225	10.9% (8.7%- 13.5%)	17.1% (14.1% - 20.6%)	↓
White, Non-Hispanic	12,708	1,517,124	344,697	22.7% (21.8%- 23.6%)	24.7% (23.8% - 25.6%)	
Other, Non-Hispanic	495	87,655	10,154	11.6% (8.9%- 14.9%)	17.4% (13.8% - 21.6%)	↓

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each rate/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate

High Blood Pressure

Why Is It Important?

Blood pressure is considered "high" at the level of 140/90 or higher.[39] High blood pressure is an important risk factor for heart disease and stroke.[29] Risk factors for high blood pressure include obesity, high cholesterol, diabetes, cigarette smoking, low physical activity, age, and family history of cardiovascular disease. People with high blood pressure may not look or feel sick. Only a health care professional can diagnose high blood pressure. The most recent data available show that 80-100% of Utahns of all races and ethnicities had their blood pressure checked within the last two years.[40]

High Blood Pressure, Utah, 2003, 2005, and 2007

Group	Percentage
All Utah Adults	21.4%
American Indian/Alaska Native	25.5%
Asian	23.7%
Black or African American	31.5%
Native Hawaiian/Pacific Islander	22.9%
White	21.4%
Hispanic or Latino	21.9%
White, Non-Hispanic	21.3%
Other, Non-Hispanic	25.2%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- In 2003, 2005, and 2007, 21.4% of Utah adults reported that they had been told by a doctor that their blood pressure was high (age-adjusted rate).
- There were no statistically significant differences in high blood pressure rates by race and ethnicity.

How Can We Improve?

People with high blood pressure can reduce their risk of heart attack and stroke by taking blood pressure medication and having regular health checkups. Experts also recommend that people with high blood pressure reduce how often they eat processed or pre-packaged foods that are high in salt, reduce their alcohol use, quit smoking, and increase their physical activity. Taking blood pressure medications and having regular health checkups can help people with high blood pressure.[29] The UDOH, Heart Disease and Stroke Prevention Program works with health plans, health care providers, and employers to help people with high blood pressure to decrease their risk of heart attack and stroke.

Percentage of Utah Adults (Age 18 and Over) Who Reported Having Been Told They Had High Blood Pressure, 2003, 2005, and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# With High Blood Pressure	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,233	1,781,429	338,433	19.0% (18.2%- 19.8%)	21.4% (20.7% - 22.2%)	n/a
American Indian/Alaska Native	156	23,796	4,854	20.4% (13.4%- 29.9%)	25.5% (17.7% - 35.4%)	
Asian	133	40,656	5,281	13.0% (8.4%- 19.5%)	23.7% (17.3% - 31.5%)	
Black or African American	70	19,213	4,048	21.1% (12.5%- 33.2%)	31.5% (21.4% - 43.7%)	
Native Hawaiian/Pacific Islander	54	12,877	1,646	12.8% (5.4%- 27.2%)	22.9% (10.1% - 44.0%)	
White	13,126	1,684,887	330,847	19.6% (18.8%- 20.5%)	21.4% (20.6% - 22.2%)	
Hispanic or Latino	910	176,650	22,691	12.8% (10.3%- 15.8%)	21.9% (18.6% - 25.6%)	
White, Non-Hispanic	12,767	1,517,124	298,047	19.6% (18.8%- 20.5%)	21.3% (20.5% - 22.1%)	
Other, Non-Hispanic	496	87,655	15,794	18.0% (14.3%- 22.4%)	25.2% (21.0% - 29.9%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.
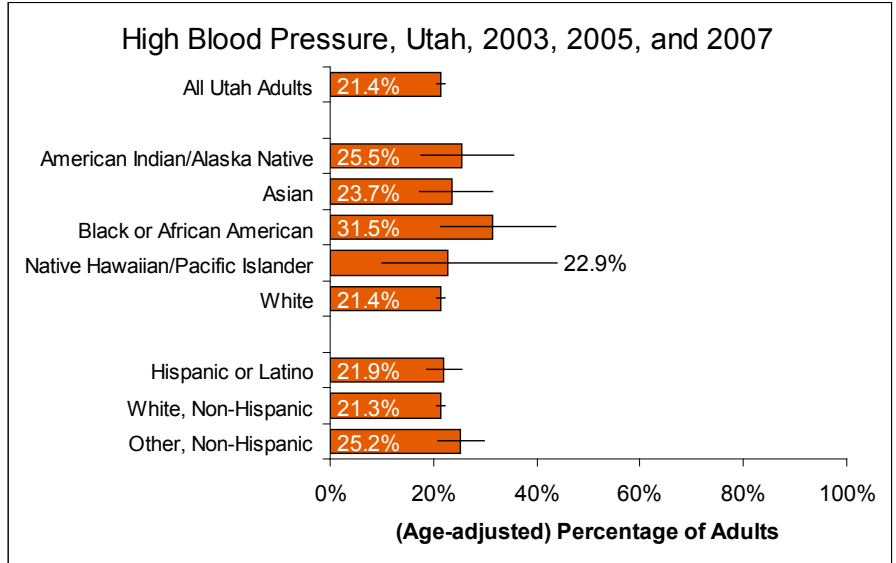
*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each rate/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate
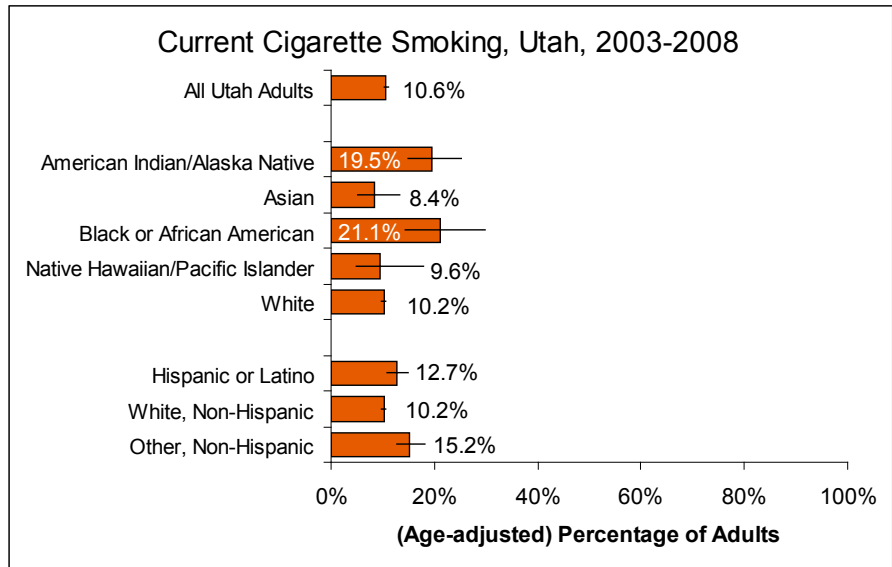
Risk Factors for Illness or Injury

Cigarette Smoking

Why Is It Important?
Tobacco use is the leading
preventable cause of death and
disease in the U.S., claiming more
than 443,000 lives each year.[41]
Smoking increases the risk for
chronic lung disease; coronary
heart disease; stroke; cancers of the
lungs, larynx, esophagus, mouth,
cervix, pancreas, bladder, and
kidneys; and many other cancers
and diseases.[42]

How Are We Doing?
- From 2003-2008, 10.6% of
  Utah adults reported smoking
  (age-adjusted rate).
- Utah's smoking rate is the
  lowest in the nation. However,
  nearly 190,000 Utahns of all ages still smoke.[43]
- American Indian/Alaska Native, Black/African American and Hispanic/Latino Utahns had significantly
  higher age-adjusted rates of cigarette smoking than all Utahns.
- These data may underestimate smoking prevalence because the sample excludes mobile phone
  numbers. Research shows that people who use only mobile phones and not land lines tend to have
  higher smoking rates than the general population.[44] Cell phone users will be included in BRFSS
  surveys beginning in 2009.

Current Cigarette Smoking, Utah, 2003-2008

Group	(Age-adjusted) Percentage of Adults
All Utah Adults	10.6%
American Indian/Alaska Native	19.5%
Asian	8.4%
Black or African American	21.1%
Native Hawaiian/Pacific Islander	9.6%
White	10.2%
Hispanic or Latino	12.7%
White, Non-Hispanic	10.2%
Other, Non-Hispanic	15.2%

How Can We Improve?
The UDOH Tobacco Prevention and Control Program (TPCP) funds statewide and local tobacco-use
cessation services, including the Utah Tobacco Quit Line (1-888-567-TRUTH), the Spanish Utah Tobacco
Quit Line (1-877-629-1585), a web-based cessation service (www.utahquitnet.com), and school and
community-based programs for teens and pregnant women. A statewide media campaign in English and
Spanish advertises these services and motivates smokers to quit. The TPCP prevents youth tobacco use
through school-based programs and youth advocacy groups. TPCP funds community-based organizations to
tailor marketing materials and messages and provide outreach for racial and ethnic groups.

Percentage of Utah Adults (Age 18 and Over) Who Reported Current Cigarette Smoking, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	# of Current Smokers	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,902	1,781,429	191,613	10.8% (10.3%- 11.3%)	10.6% (10.2% - 11.1%)	n/a
American Indian/Alaska Native	339	23,796	4,709	19.8% (14.4%- 26.5%)	19.5% (14.8% - 25.2%)	↑
Asian	280	40,656	3,997	9.8% (5.8%- 16.3%)	8.4% (5.2% - 13.2%)	
Black or African American	132	19,213	3,845	20.0% (13.2%- 29.2%)	21.1% (14.5% - 29.7%)	↑
Native Hawaiian/Pacific Islander	112	12,877	1,706	13.2% (6.5%- 25.1%)	9.6% (4.9% - 17.9%)	
White	27,520	1,684,887	172,843	10.3% (9.8%- 10.7%)	10.2% (9.8% - 10.7%)	
Hispanic or Latino	1,941	176,650	23,580	13.3% (11.3%- 15.7%)	12.7% (10.8% - 14.8%)	↑
White, Non-Hispanic	26,761	1,517,124	155,288	10.2% (9.8%- 10.7%)	10.2% (9.7% - 10.7%)	
Other, Non-Hispanic	1,043	87,655	13,701	15.6% (12.8%- 19.0%)	15.2% (12.7% - 18.1%)	↑

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Current cigarette smoking was defined as anyone who had smoked 100 cigarettes or more and currently smokes every day or some days.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Tobacco Prevention and Control Program, 877-220-3466 http://www.tobaccofreeutah.org/
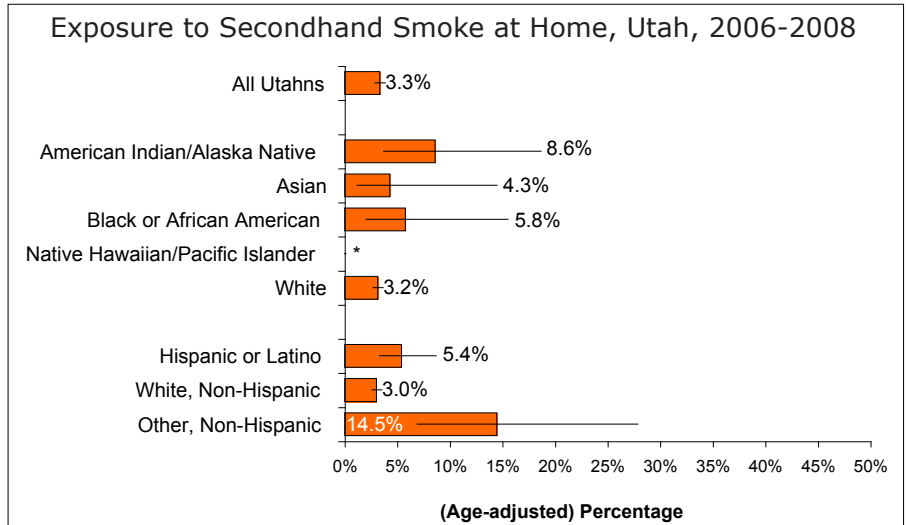
Risk Factors for Illness or Injury

Exposure to Secondhand Smoke

Why Is It Important?
Exposure to secondhand smoke has been linked to many chronic conditions including heart disease, lung cancer, and respiratory illnesses.[45]

How Are We Doing?
- From 2006-2008, 3.3% of Utahns reported exposure to secondhand smoke in their homes (age-adjusted rate).
- American Indian/Alaska Native Utahns had significantly higher age-adjusted rates of exposure to secondhand smoke at home than all Utahns.

Exposure to Secondhand Smoke at Home, Utah, 2006-2008

Group	Rate
All Utahns	3.3%
American Indian/Alaska Native	8.6%
Asian	4.3%
Black or African American	5.8%
Native Hawaiian/Pacific Islander	*
White	3.2%
Hispanic or Latino	5.4%
White, Non-Hispanic	3.0%
Other, Non-Hispanic	14.5%

(Age-adjusted) Percentage

How Can We Improve?
Heads of households should make rules forbidding smoking within the home or car. Non-smokers should stay away from people who are smoking. Smokers should avoid smoking indoors or near building windows or entrances until they are able to quit. The UDOH, Tobacco Prevention and Control Program (TPCP) can help Utahns quit smoking or encourage someone else to quit through statewide and local tobacco-use cessation services, including the Utah Tobacco Quit Line (1-888-567-TRUTH), the Spanish Utah Tobacco Quit Line (1-877-629-1585), a web-based cessation service (www.utahquitnet.com), and school and community-based programs for teens and pregnant women. A statewide media campaign in English and Spanish advertises these services and motivates smokers to quit. The TPCP prevents youth tobacco use through school-based programs and youth advocacy groups. TPCP funds community-based organizations to tailor marketing materials and messages and provide outreach for racial and ethnic groups.

Exposure to Cigarette Smoke: Percentage of Persons Who Had Been Exposed to Cigarette Smoke Inside the Home, Utah, 2006-2008

Race/Ethnicity	Sample Size	Total Population	#Exposed to SHS at Home	Crude Rate (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utahns	28,363	2,699,554	97,481	3.6% (3.2%- 4.1%)	3.3% (2.9%- 3.9%)	n/a
American Indian/Alaska Native	293	38,517	2,920	7.6% (3.0%- 17.7%)	8.6% (3.7%- 18.7%)	↑
Asian	241	59,078	1,607	2.7% (0.9%- 7.6%)	4.3% (1.2%- 14.5%)	
Black or African American	147	40,388	2,297	5.7% (1.9%- 15.7%)	5.8% (2.0%- 15.5%)	
Native Hawaiian/Pacific Islander	150	22,199	*	* (*- *)	* (*- *)	
White	24,660	2,539,372	77,839	3.1% (2.6%- 3.6%)	3.2% (2.7%- 3.7%)	
Hispanic or Latino	1,527	314,287	14,203	4.5% (2.7%- 7.3%)	5.4% (3.3%- 8.7%)	
White, Non-Hispanic	23,725	2,241,726	66,451	3.0% (2.5%- 3.5%)	3.0% (2.6%- 3.5%)	
Other, Non-Hispanic	195	143,540	21,320	14.9% (6.8%- 29.5%)	14.5% (6.9%- 27.9%)	↑

Source: Utah Healthcare Access Survey. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2007 year.

* Due to a low frequency, these rates are unstable and have been suppressed.

** Age-adjusted to the U.S. 2000 standard population

*** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
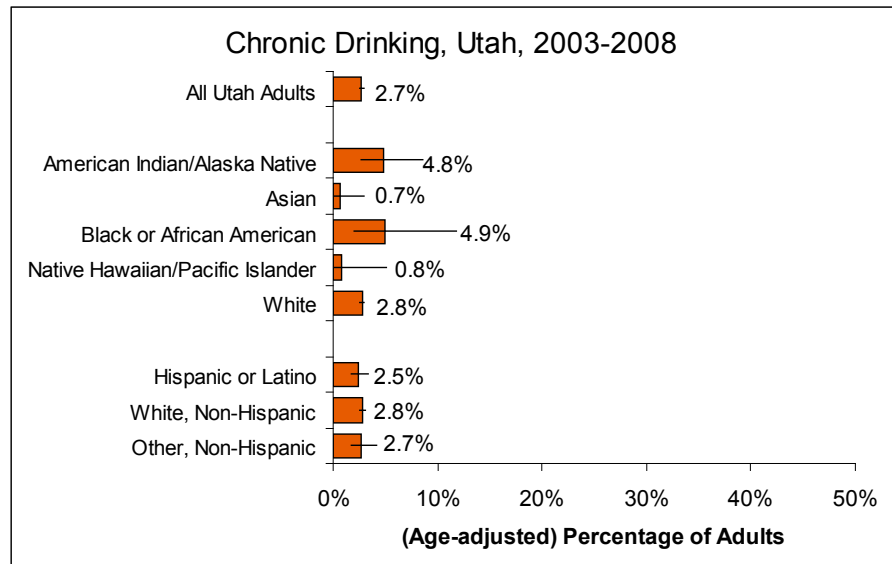
Chronic Drinking

Why Is It Important?

Alcohol abuse is strongly associated with injuries and violence, chronic liver disease, fetal alcohol syndrome, and risk of other acute and chronic health conditions. Birth defects associated with prenatal alcohol exposure can occur during the first six to eight weeks of pregnancy before a woman knows she is pregnant.[46]

How Are We Doing?

- From 2003-2008, 2.7% of Utah adults reported chronic drinking within the past 30 days (age-adjusted rate).
- This rate is significantly lower than the U.S. chronic drinking rate.[133]
- There were no significant differences in self-reported chronic drinking by race or ethnicity.

How Can We Improve?

Signs of chronic drinking problem include relationship, school, and social problems, and profound changes in how the drinker thinks and feels.[47] The UDOH, Pregnancy Risk Line, 1-800-822-BABY (2229), answers questions about medicines, drugs, chemicals, and other environmental exposures that can potentially harm an embryo, fetus, or infant. The Utah Department of Human Services, Division of Substance Abuse and Mental Health contracts with Local Substance Abuse Authorities to provide substance abuse treatment services. The fee is based on the individual's ability to pay. For more information, see http://www.dsamh.utah.gov/.

Chronic Drinking, Utah, 2003-2008

All Utah Adults	2.7%		
American Indian/Alaska Native	4.8%		
Asian	0.7%		
Black or African American	4.9%		
Native Hawaiian/Pacific Islander	0.8%		
White	2.8%		
Hispanic or Latino	2.5%		
White, Non-Hispanic	2.8%		
Other, Non-Hispanic	2.7%		

(Age-adjusted) Percentage of Adults

Percentage of Utah Adults (Age 18 and Over) Who Reported Chronic Drinking, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	# Chronic Drinking	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,639	1,781,429	49,788	2.8% (2.6%- 3.1%)	2.7% (2.5% - 3.0%)	n/a
American Indian/Alaska Native	340	23,796	1,553	6.5% (3.5%- 11.7%)	4.8% (2.7% - 8.5%)	
Asian	273	40,656	262	0.6% (0.1%- 2.9%)	0.7% (0.1% - 2.9%)	
Black or African American	132	19,213	1,022	5.3% (1.9%- 13.8%)	4.9% (1.9% - 11.9%)	
Native Hawaiian/Pacific Islander	111	12,877	178	1.4% (0.2%- 9.2%)	0.8% (0.1% - 5.1%)	
White	27,310	1,684,887	47,014	2.8% (2.5%- 3.1%)	2.8% (2.5% - 3.0%)	
Hispanic or Latino	1,898	176,650	4,860	2.8% (2.0%- 3.8%)	2.5% (1.8% - 3.4%)	
White, Non-Hispanic	26,564	1,517,124	42,324	2.8% (2.5%- 3.1%)	2.8% (2.5% - 3.0%)	
Other, Non-Hispanic	1,029	87,655	2,710	3.1% (2.0%- 4.8%)	2.7% (1.7% - 4.1%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Chronic drinking, or heavy drinking, was defined as 60+ drinks in the past 30 days for men and 30+ drinks in the past 30 days for women.

*Age-adjusted to the U.S. 2000 standard population
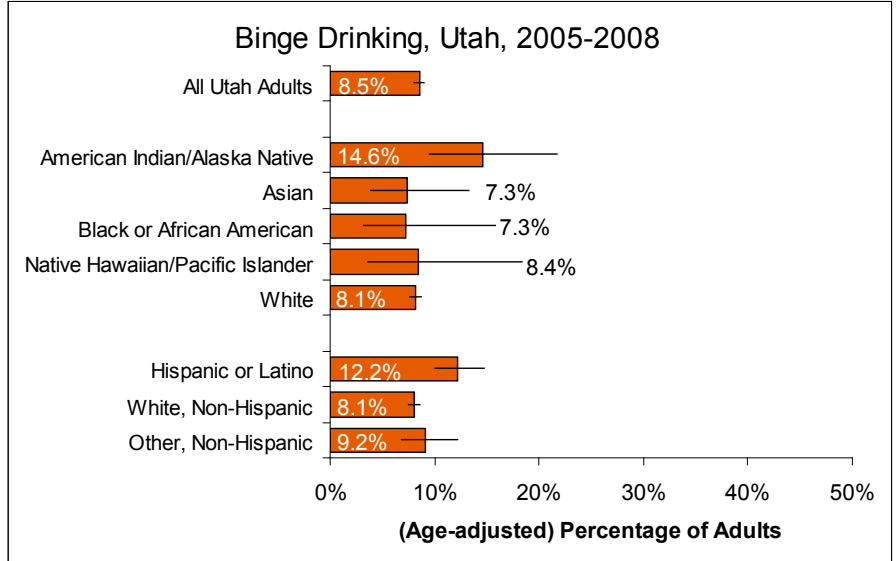
** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Center for Multicultural Health, 888-222-2542, http://health.utah.gov/cmh/

Binge Drinking

Why Is It Important?

Binge drinking is drinking four or more drinks on one occasion for a woman or five or more drinks on one occasion for a man. Binge drinking typically results in acute intoxication, which can cause impaired brain function; increased risk of certain cancers, stroke, and liver diseases; damage to a developing fetus if consumed by pregnant women; increased risk of motor vehicle traffic crashes, violence, and other injuries; and coma or death. Death can result from alcohol poisoning (overdose); choking on or inhaling vomit; and injuries from falls, fights, and motor vehicle and bicycle accidents.[47]

Binge Drinking, Utah, 2005-2008

Group	(Age-adjusted) Percentage of Adults
All Utah Adults	8.5%
American Indian/Alaska Native	14.6%
Asian	7.3%
Black or African American	7.3%
Native Hawaiian/Pacific Islander	8.4%
White	8.1%
Hispanic or Latino	12.2%
White, Non-Hispanic	8.1%
Other, Non-Hispanic	9.2%

How Are We Doing?

- From 2005-2008, 8.5% of Utah adults reported binge drinking within the past 30 days (age-adjusted rate).
- This rate is significantly lower than the U.S. binge drinking rate.[131]
- American Indian/Alaska Native and Hispanic/Latino Utahns had significantly higher rates of binge drinking than all Utahns.

How Can We Improve?

Women should not drink more than three alcoholic drinks and men should not drink more than four alcoholic drinks during a single occasion. The Utah Department of Human Services, Division of Substance Abuse and Mental Health contracts with Local Substance Abuse Authorities to provide substance abuse treatment services. The fee is based on the individual's ability to pay. For more information, see http://www.dsamh.utah.gov/.

Percentage of Utah Adults (Age 18 and Over) Who Reported Binge Drinking in the Past Month, 2005-2008

Race/Ethnicity	Sample Size	Total Adult Population	# Binge Drinking	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	20,516	1,781,429	159,572	9.0% (8.4%- 9.5%)	8.5% (8.0% - 9.0%)	n/a
American Indian/Alaska Native	237	23,796	4,196	17.6% (10.8%- 27.5%)	14.6% (9.5% - 21.8%)	↑
Asian	176	40,656	3,556	8.7% (4.5%- 16.3%)	7.3% (3.9% - 13.3%)	
Black or African American	87	19,213	1,711	8.9% (3.6%- 20.5%)	7.3% (3.2% - 15.8%)	
Native Hawaiian/Pacific Islander	82	12,877	1,755	13.6% (5.3%- 31.0%)	8.4% (3.6% - 18.3%)	
White	18,908	1,684,887	141,348	8.4% (7.8%- 9.0%)	8.1% (7.6% - 8.7%)	
Hispanic or Latino	1,314	176,650	25,969	14.7% (12.1%- 17.8%)	12.2% (10.1%- 14.7%)	↑
White, Non-Hispanic	18,364	1,517,124	125,506	8.3% (7.7%- 8.9%)	8.1% (7.6% - 8.6%)	
Other, Non-Hispanic	718	87,655	9,849	11.2% (8.1%- 15.3%)	9.2% (6.8% - 12.2%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Binge drinking was defined as five or more drinks on one occasion in the past month for men and four or more drinks on one occasion in the past month for women.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Driving Under the Influence

Why Is It Important?

Driving under the influence (DUI) contributed to 22% of fatal motor vehicle crashes in Utah in 2007.[48]

How Are We Doing?

- Fewer than 1% of Utah adults reported that they drove a car after drinking alcohol in the past month.
- There were no significant differences in self-reported driving under the influence by race or ethnicity.

How Can We Improve?

It is illegal to drive with a blood alcohol concentration of 0.08 or

Percent Reporting DUI, Utah 2004, 2006 and 2008

Race/Ethnicity	Percentage
All Utah Adults	0.6%
American Indian/Alaska Native	1.6%
Asian	0.0%
Black or African American	2.5%
Native Hawaiian/Pacific Islander	0.0%
White	0.5%
Hispanic or Latino	1.0%
White, Non-Hispanic	0.5%
Other, Non-Hispanic	1.9%

(Age-adjusted) Percentage of Adults

higher. This means that a person may not drink more than two or three drinks prior to driving, depending on your size and gender.[49] The best and easiest way to avoid impaired driving accidents is not to get behind the wheel after drinking. Before partaking in festivities involving alcohol, designate a person to provide a safe and sober ride home who will drink only non-alcoholic beverages. The Utah Safety Leadership Team is implementing engineering, enforcement and education strategies such as the "Zero Fatalities" campaign to reduce motor vehicle crash deaths, including those related to driving under the influence. The Utah Department of Human Services, Division of Substance Abuse and Mental Health, provides the Prime for Life education program for court-ordered DUI offenders. The goals of this 16-hour program are to increase awareness of the risks of addiction and other substance abuse problems and to help individuals reduce that risk. The Utah Department of Public Safety, Highway Safety Office funds enforcement efforts and media campaigns to prevent driving under the influence. It also provides funds to high school and college alcohol and drug prevention programs.
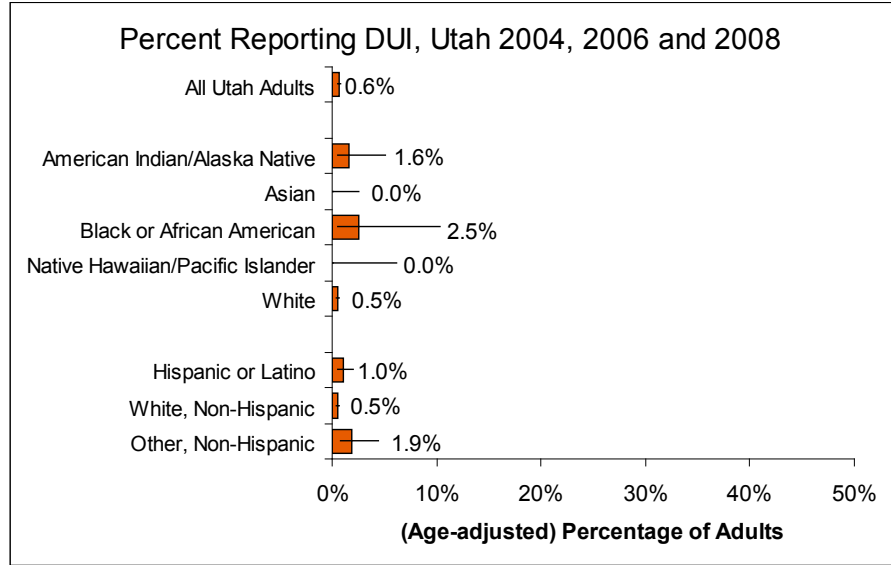
Percentage of Utah Adults (Age 18 and Over) Who Reported Driving After Alcohol Use in the Past Month, 2004, 2006 and 2008

Race/Ethnicity	Sample Size	Total Adult Population	# reporting DUI	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	15,611	1,781,429	12,007	0.7% (0.5%- 0.9%)	0.6% (0.5% - 0.8%)	n/a
American Indian/Alaska Native	189	23,796	529	2.2% (0.7%- 7.0%)	1.6% (0.5% - 5.1%)	
Asian	147	40,656	–	0.0% (0.0%- 2.6%)	0.0% (0.0% - 2.6%)	
Black or African American	62	19,213	511	2.7% (0.6%- 10.9%)	2.5% (0.6% - 10.3%)	
Native Hawaiian/Pacific Islander	58	12,877	–	0.0% (0.0%- 6.2%)	0.0% (0.0% - 6.2%)	
White	14,358	1,684,887	8,889	0.5% (0.4%- 0.7%)	0.5% (0.4% - 0.7%)	
Hispanic or Latino	1,002	176,650	1,816	1.0% (0.5%- 1.9%)	1.0% (0.5% - 2.0%)	
White, Non-Hispanic	13,962	1,517,124	8,186	0.5% (0.4%- 0.7%)	0.5% (0.4% - 0.7%)	
Other, Non-Hispanic	551	87,655	2,413	2.8% (1.1%- 6.5%)	1.9% (0.8% - 4.4%)	↑

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

PROTECTIVE FACTORS
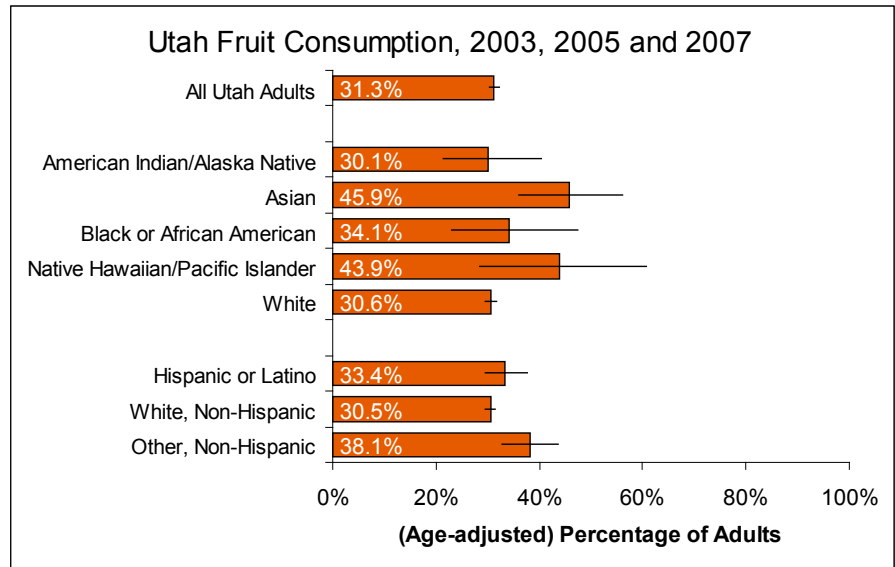
Protective Factors for Health

Daily Fruit Consumption

Why Is It Important?

A healthy diet is necessary for child growth and development and reduces risk for chronic diseases in people of all ages. According to the Dietary Guidelines for Americans, a healthy eating plan emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products; includes lean meats, poultry, fish, beans, eggs, and nuts; is low in saturated fats, trans fats, cholesterol, salt (sodium), and refined sugars; and stays within daily calorie needs.[50]

How Are We Doing?

- Only 31.3% of Utah adults reported eating two or more servings of fruit each day in 2003, 2005, and 2007 (age-adjusted rate).
- Asian Utahns had a significantly higher rate of fruit consumption than all Utahns. Still, about half of Utah Asian adults did not eat the recommended number of fruits per day.

Utah Fruit Consumption, 2003, 2005 and 2007

Race/Ethnicity	Percentage
All Utah Adults	31.3%
American Indian/Alaska Native	30.1%
Asian	45.9%
Black or African American	34.1%
Native Hawaiian/Pacific Islander	43.9%
White	30.6%
Hispanic or Latino	33.4%
White, Non-Hispanic	30.5%
Other, Non-Hispanic	38.1%

(Age-adjusted) Percentage of Adults

How Can We Improve?

Healthy eating includes a variety of foods. Focusing on all the healthy foods to eat instead of on restricted foods can make having a healthy diet feel easier. Healthy food and recipe ideas can come from asking friends; visiting new grocery stores and farmers's markets; and searching the Internet, books, and magazines. Baking or grilling is healthier than frying. Foods high in calories, fat or added sugars can be eaten occasionally in moderation and balanced with healthier foods and more physical activity.[50] In 2008, the U.S. Centers for Disease Control and Prevention began funding the UDOH, Physical Activity, Nutrition, and Obesity (PANO) program to promote fruit and vegetable consumption and other behaviors that contribute to healthy weight. The UDOH, WIC (Women, Infants and Children) Program offers nutritious foods and nutrition education for pregnant women, new mothers, and young children who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/wic/apply.html.

Percentage of Utah Adults (Age 18 and Over) Who Reported Eating Two+ Fruits Daily, 2003, 2005, and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# Eating 2+ Fruits	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,145	1,781,429	543,181	30.5% (29.5%- 31.5%)	31.3% (30.3%- 32.2%)	n/a
American Indian/Alaska Native	153	23,796	7,662	32.2% (21.8%- 44.7%)	30.1% (21.5%- 40.4%)	
Asian	128	40,656	17,859	43.9% (33.6%- 54.8%)	45.9% (36.1%- 56.0%)	↑
Black or African American	69	19,213	7,693	40.0% (25.5%- 56.6%)	34.1% (23.0%- 47.4%)	
Native Hawaiian/Pacific Islander	51	12,877	5,727	44.5% (29.0%- 61.1%)	43.9% (28.3%- 60.8%)	
White	13,053	1,684,887	505,346	30.0% (29.0%- 31.1%)	30.6% (29.6%- 31.7%)	
Hispanic or Latino	900	176,650	57,560	32.6% (28.6%- 36.9%)	33.4% (29.4%- 37.6%)	
White, Non-Hispanic	12,701	1,517,124	454,343	29.9% (28.9%- 31.0%)	30.5% (29.5%- 31.6%)	
Other, Non-Hispanic	485	87,655	32,869	37.5% (31.9%- 43.5%)	38.1% (32.9%- 43.7%)	↑

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Physical Activity, Nutrition, & Obesity Program, 801-538-6229 http://health.utah.gov/obesity/

Protective Factors for Health

Daily Vegetable Consumption

Why Is It Important?

People whose diets are rich in plant foods such as fruit and vegetables have a lower risk of getting cancer, heart disease, and diabetes. A diet high in fruits and vegetables helps to reduce calorie intake and may help to control weight.[50]

How Are We Doing?

- Only 23.3% of Utah adults reported eating three or more daily servings of vegetables in 2003, 2005, and 2007 (age-adjusted rate).
- Hispanic/Latino Utahns had a significantly lower rate of vegetable consumption than all Utahns.
- Asian Utahns had a significantly higher rate of vegetable consumption than all Utahns. Still, the majority of Utah Asian adults did not eat the recommended number of vegetables per day.

Utah Vegetable Consumption, 2003, 2005, and 2007

Group	Value
All Utah Adults	23.3%
American Indian/Alaska Native	15.5%
Asian	34.1%
Black or African American	17.5%
Native Hawaiian/Pacific Islander	19.8%
White	24.0%
Hispanic or Latino	15.9%
White, Non-Hispanic	24.1%
Other, Non-Hispanic	23.8%

(Age-adjusted) Percentage of Adults

How Can We Improve?

Adults should eat 2½ to 6½ cups of fruits and vegetables daily, depending on calorie needs for a person of their size. People should consume a variety of fruits and vegetables, choosing among citrus fruits, melons, and berries; other fruits; dark green leafy vegetables; bright orange vegetables; legumes; starchy vegetables; and other vegetables.[50] In 2008, the U.S. Centers for Disease Control and Prevention began funding the UDOH, Physical Activity, Nutrition, and Obesity (PANO) program to promote fruit and vegetable consumption and other behaviors that contribute to healthy weight. The UDOH, WIC (Women, Infants and Children) Program offers nutritious foods and nutrition education for pregnant women, new mothers, and young children who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/wic/apply.html.

Percentage of Utah Adults (Age 18 and Over) Who Reported Eating 3+ Vegetables Daily, 2003, 2005, and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# Eating 3+ Vegetables	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,120	1,781,429	404,148	22.7% (21.8%- 23.6%)	23.3% (22.4% - 24.3%)	n/a
American Indian/Alaska Native	153	23,796	3,773	15.9% (8.8%- 26.8%)	15.5% (9.3% - 24.8%)	
Asian	128	40,656	11,794	29.0% (20.7%- 39.0%)	34.1% (25.7% - 43.7%)	↑
Black or African American	69	19,213	3,342	17.4% (7.0%- 37.1%)	17.5% (9.1% - 31.1%)	
Native Hawaiian/Pacific Islander	50	12,877	2,854	22.2% (11.8%- 37.7%)	19.8% (9.4% - 37.2%)	
White	13,032	1,684,887	394,790	23.4% (22.4%- 24.4%)	24.0% (23.0% - 24.9%)	
Hispanic or Latino	898	176,650	25,025	14.2% (11.4%- 17.5%)	15.9% (12.9% - 19.5%)	↓
White, Non-Hispanic	12,681	1,517,124	358,235	23.6% (22.6%- 24.6%)	24.1% (23.1% - 25.1%)	
Other, Non-Hispanic	484	87,655	19,558	22.3% (17.7%- 27.7%)	23.8% (19.5% - 28.8%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
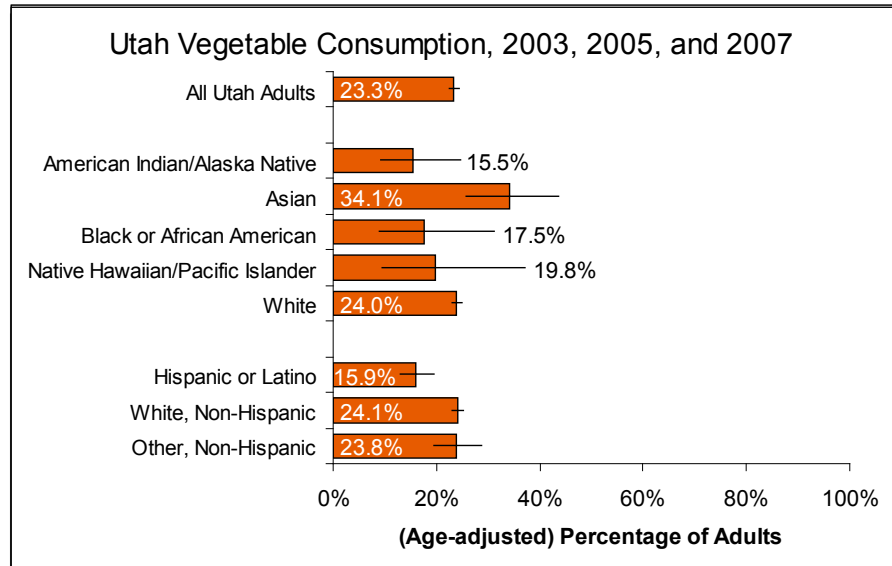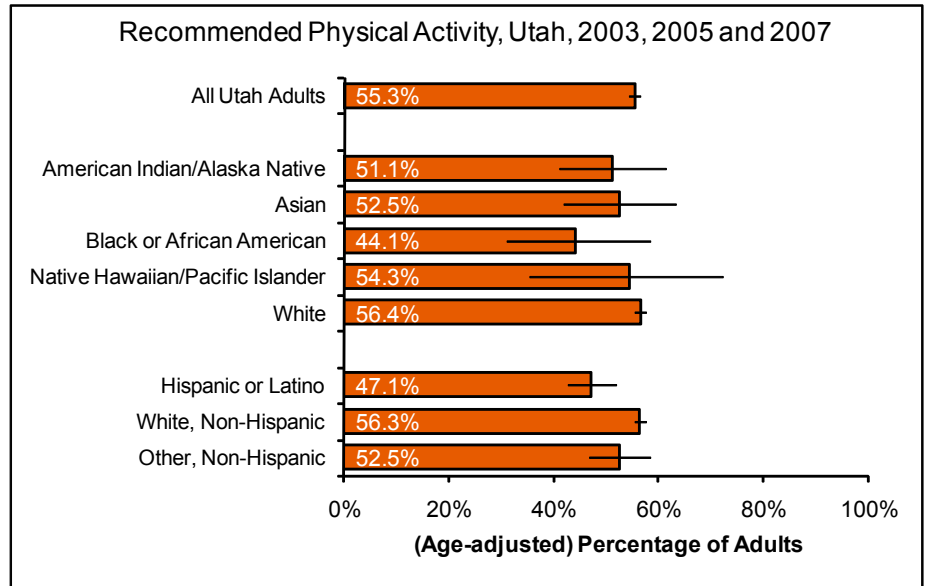
Protective Factors for Health

Recommended Physical Activity

Why Is It Important?

In addition to weight control, physical activity helps prevent heart disease, helps control cholesterol levels and diabetes, slows bone loss associated with advancing age, lowers the risk of certain cancers, and helps reduce anxiety and depression.[35] Only a few lifestyle choices have as large an effect on mortality as physical activity. Even low amounts of physical activity reduce the risk of premature death. The relative risk of dying prematurely continues to be lower as physical activity increases.[38]

Recommended Physical Activity, Utah, 2003, 2005 and 2007

Category	%
All Utah Adults	55.3%
American Indian/Alaska Native	51.1%
Asian	52.5%
Black or African American	44.1%
Native Hawaiian/Pacific Islander	54.3%
White	56.4%
Hispanic or Latino	47.1%
White, Non-Hispanic	56.3%
Other, Non-Hispanic	52.5%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- In 2003, 2005, and 2007, 55.3% of all Utah adults reported getting the recommended amount of physical activity (age-adjusted rate).
- A higher proportion of Utahns are physically active compared to Americans nationwide.[51]
- Hispanic/Latino Utahns had a significantly lower rate of getting the recommended amount of physical activity than all Utahns.

How Can We Improve?

The U.S. Department of Health and Human Services recommends that adults participate in light or moderate physical activity for at least 30 minutes five or more times per week or in vigorous physical activity for at least 20 minutes three or more times per week.[38] The UDOH, Physical Activity, Nutrition and Obesity (PANO) Program works with local health departments and other partners to improve or develop community environments where people can walk and bike safely, and hosts a website, http://www.utahwalks.org/, with information on places to walk and bike throughout Utah.

Percentage of Utah Adults (Age 18 and Over) Who Reported Getting the Recommended Amount of Physical Activity, 2003, 2005 and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# Getting Physical Activity	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	13,483	1,781,429	998,326	56.0% (54.9%- 57.2%)	55.3% (54.2% - 56.4%)	n/a
American Indian/Alaska Native	142	23,796	13,012	54.7% (43.0%- 65.9%)	51.1% (40.8% - 61.3%)	
Asian	116	40,656	20,985	51.6% (40.1%- 62.9%)	52.5% (41.6% - 63.1%)	
Black or African American	68	19,213	8,749	45.5% (31.0%- 60.9%)	44.1% (30.8% - 58.2%)	
Native Hawaiian/Pacific Islander	50	12,877	8,415	65.3% (49.4%- 78.5%)	54.3% (35.3% - 72.1%)	
White	12,490	1,684,887	961,080	57.0% (55.9%- 58.2%)	56.4% (55.3% - 57.5%)	
Hispanic or Latino	815	176,650	85,879	48.6% (43.9%- 53.4%)	47.1% (42.6% - 51.7%)	↓
White, Non-Hispanic	12,163	1,517,124	863,708	56.9% (55.7%- 58.1%)	56.3% (55.2% - 57.5%)	
Other, Non-Hispanic	455	87,655	47,635	54.3% (48.1%- 60.4%)	52.5% (46.7% - 58.2%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Recommended physical activity is defined as light or moderate physical activity for at least 30 minutes five or more times per week or vigorous physical activity for at least 20 minutes three or more times per week.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
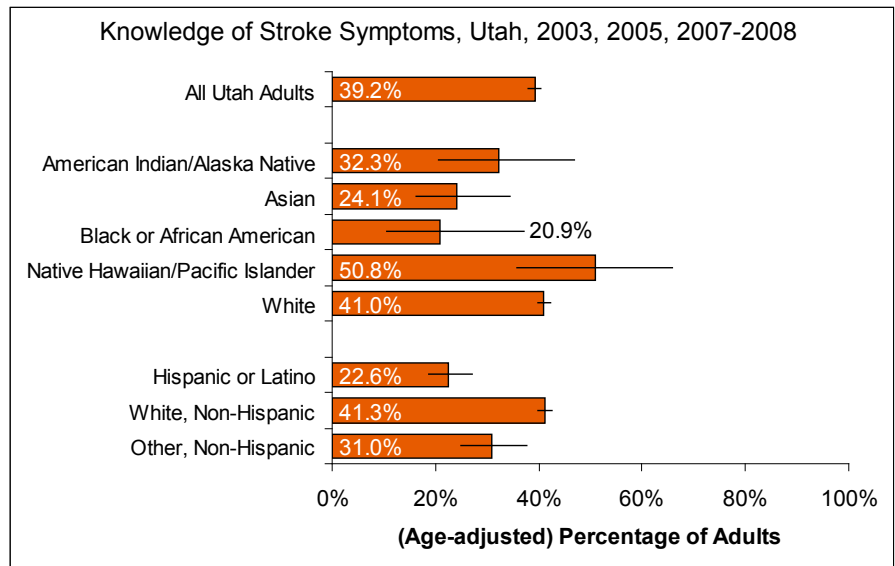
Contact: UDOH Physical Activity, Nutrition, & Obesity Program, 801-538-6229 http://health.utah.gov/obesity/

Protective Factors for Health

Knowledge of Stroke Symptoms

Why Is It Important?
Stroke is the third leading cause of death in the United States and Utah. Among survivors, stroke can cause significant disability including paralysis and speech and emotional problems. Knowing the symptoms of stroke, calling 911 right away, and getting to a hospital are crucial to the best outcomes after having a stroke.[29,52]

How Are We Doing?
- In 2003, 2005 and 2007-2008, 39.2% of Utah adults knew the signs and symptoms of a stroke and would call 911 (age-adjusted rate).
- A significantly smaller proportion of Asian, Black / African American, and Hispanic/Latino Utahns reported that they knew the signs and symptoms of a stroke and would call 911 than all Utahns.
- White, Non-Hispanic Utahns had a significantly higher rate of knowledge of signs and symptoms of a stroke than all Utahns.

Knowledge of Stroke Symptoms, Utah, 2003, 2005, 2007-2008

	(Age-adjusted) Percentage of Adults
All Utah Adults	39.2%
American Indian/Alaska Native	32.3%
Asian	24.1%
Black or African American	20.9%
Native Hawaiian/Pacific Islander	50.8%
White	41.0%
Hispanic or Latino	22.6%
White, Non-Hispanic	41.3%
Other, Non-Hispanic	31.0%

How Can We Improve?
Calling 911 immediately after recognizing signs of a stroke can save a life. Treatments may also help stop brain damage and disability if administered within three hours of the first sign of a stroke.[29] Signs include sudden numbness or weakness of the face, arm or leg, especially on one side of the body; sudden trouble seeing in one or both eyes; sudden trouble walking, dizziness, loss of balance or coordination; sudden severe headache with no known cause; and sudden confusion or trouble speaking.[53] The UDOH, Heart Disease and Stroke Prevention Program is working to educate the public on the signs and symptoms of stroke, using TV, radio, and print ads. In 2009, the Heart Disease and Stroke Prevention Program created a Spanish–language website about stroke, http://tucorazon.health.utah.gov.

Percentage of Utah Adults (Age 18 and Over) Who Know the Signs and Symptoms of Stroke and Would Call 911, 2003, 2005, 2007-2008

Race/Ethnicity	Sample Size	Total Adult Population	Number with Stroke Knowledge	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	11,991	1,781,429	683,842	38.4% (37.1%- 39.7%)	39.2% (37.9% - 40.5%)	n/a
American Indian/Alaska Native	118	23,796	7,520	31.6% (19.6%- 46.6%)	32.3% (20.5% - 46.9%)	
Asian	102	40,656	9,192	22.6% (14.3%- 33.8%)	24.1% (16.1% - 34.4%)	↓
Black or African American	51	19,213	4,878	25.4% (10.6%- 49.4%)	20.9% (10.6% - 37.2%)	↓
Native Hawaiian/Pacific Islander	38	12,877	2,771	21.5% (9.5%- 41.7%)	50.8% (35.8% - 65.7%)	
White	11,108	1,684,887	682,421	40.5% (39.1%- 41.9%)	41.0% (39.7% - 42.4%)	↑
Hispanic or Latino	731	176,650	36,662	20.8% (16.9%- 25.2%)	22.6% (18.7% - 27.1%)	↓
White, Non-Hispanic	10,806	1,517,124	619,314	40.8% (39.4%- 42.2%)	41.3% (40.0% - 42.7%)	↑
Other, Non-Hispanic	389	87,655	23,267	26.5% (20.5%- 33.6%)	31.0% (25.0% - 37.6%)	↓

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
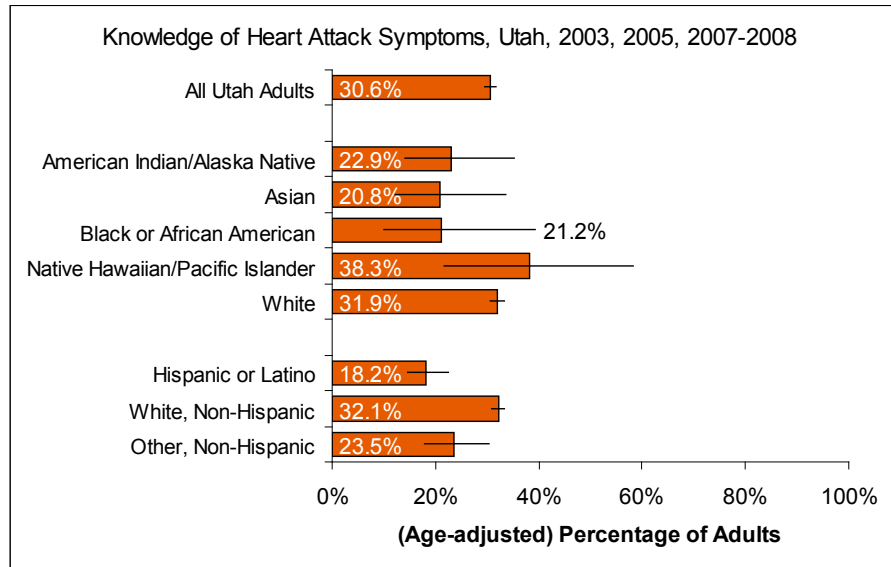
Protective Factors for Health

Knowledge of Heart Attack Symptoms

Why Is It Important?

Each year more than a million people in the U.S. have a heart attack. About half of them die. Many people have permanent heart damage or die because they don't get help immediately. Knowing the symptoms of a heart attack, calling 911 right away, and getting to a hospital are crucial to the best outcomes after having a heart attack.[54]

How Are We Doing?

- In 2003, 2005, and 2007-2008, 30.6% of all Utah adults knew the signs and symptoms of a heart attack and would call 911 (age-adjusted rate).

- A significantly smaller proportion of Hispanic/Latino Utahns reported that they knew the signs and symptoms of a heart attack and would call 911 than all Utahns.

- White, Non-Hispanic Utahns had a significantly higher rate of knowledge of signs and symptoms of a heart attack than all Utahns.

Knowledge of Heart Attack Symptoms, Utah, 2003, 2005, 2007-2008

Race	Percentage
All Utah Adults	30.6%
American Indian/Alaska Native	22.9%
Asian	20.8%
Black or African American	21.2%
Native Hawaiian/Pacific Islander	38.3%
White	31.9%
Hispanic or Latino	18.2%
White, Non-Hispanic	32.1%
Other, Non-Hispanic	23.5%

(Age-adjusted) Percentage of Adults

How Can We Improve?

Calling 911 immediately after recognizing signs of a heart attack can save a life. Clot-busting drugs can stop some heart attacks in progress, reducing disability and saving lives. They work best within one hour of when heart attack signs begin. Signs include pain or discomfort in the jaw, neck or back; feeling weak, light-headed, or faint; chest pain or discomfort; pain or discomfort in the arms or shoulder; and shortness of breath.[55] The signs and symptoms of a heart attack and the need to call 911 immediately have become a recent focus of media campaigns and other efforts to educate the public by the UDOH, Heart Disease and Stroke Prevention Program.[29]

Percentage of Utah Adults (Age 18 and Over) Who Know the Signs and Symptoms of a Heart Attack and Would Call 911, 2003, 2005, 2007-2008
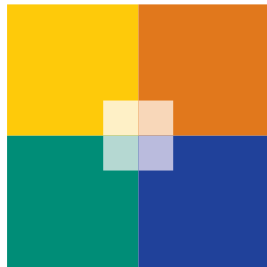
Race/Ethnicity	Sample Size	Total Adult Population	Number with Heart Attack Knowledge	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	12,001	1,781,429	525,188	29.5% (28.3%- 30.7%)	30.6% (29.5%- 31.8%)	n/a
American Indian/Alaska Native	118	23,796	5,797	24.4% (14.2%- 38.6%)	22.9% (14.0%- 35.2%)	
Asian	102	40,656	9,778	24.1% (11.8%- 42.9%)	20.8% (12.1%- 33.5%)	
Black or African American	51	19,213	4,075	21.2% (7.5%- 47.3%)	21.2% (10.0%- 39.4%)	
Native Hawaiian/Pacific Islander	38	12,877	2,116	16.4% (6.1%- 37.2%)	38.3% (21.6%- 58.4%)	
White	11,116	1,684,887	523,964	31.1% (29.8%- 32.4%)	31.9% (30.7%- 33.2%)	↑
Hispanic or Latino	735	176,650	25,308	14.3% (11.4%- 17.9%)	18.2% (14.6%- 22.5%)	↓
White, Non-Hispanic	10,812	1,517,124	475,690	31.4% (30.1%- 32.7%)	32.1% (30.9%- 33.4%)	↑
Other, Non-Hispanic	389	87,655	20,803	23.7% (17.1%- 31.9%)	23.5% (17.8%- 30.3%)	↓

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Heart Disease and Stroke Prevention Program, 801-538-6142, http://www.hearthighway.org//

HEALTH OF MOTHERS AND INFANTS

Infant Mortality

Why Is It Important?
The infant death rate is an important measure of a nation's health and a worldwide indicator of health status and social well being. More personally, each death is an individual tragedy for parents, siblings, and other family members.[56]

How Are We Doing?
- From 2004-2007, 4.5 per 1,000 of all Utah babies born died prior to their first birthday.
- The Utah infant mortality rate is lower than the U.S. infant mortality rate, but higher than the infant mortality rates of several other countries, including Singapore, Sweden, Japan, Hong Kong, Iceland, France, and Finland.[56,57]

Utah Infant Mortality, 2004-2007
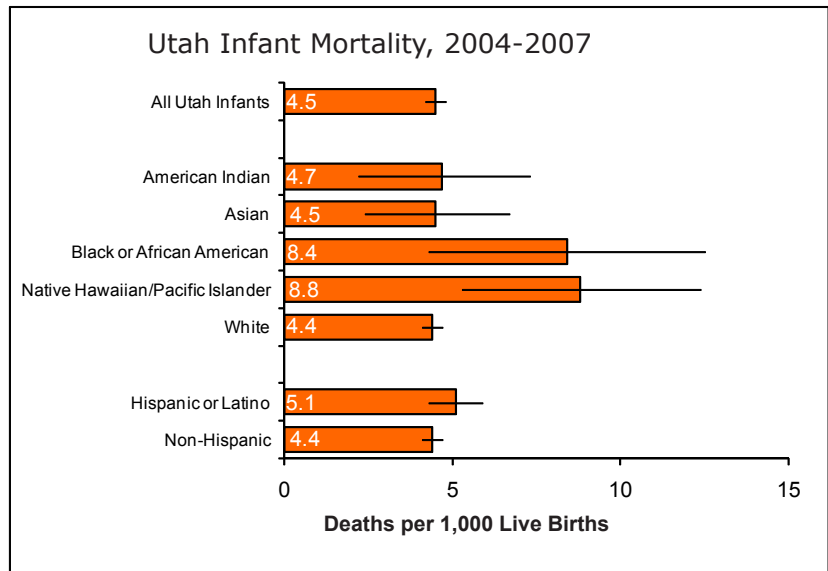
- Native Hawaiian/Pacific Islander Utah infants had a significantly higher rate of infant death than all Utah infants.
- Three causes account for more than half of all Utah infant deaths: birth defects; Sudden Infant Death Syndrome (SIDS); and conditions in the perinatal period, which include disorders of short gestation. These can reflect maternal health and the quality and accessibility of health care for pregnant women.[56]

How Can We Improve?
Not smoking or drinking alcohol during pregnancy can reduce risk for infant mortality.[56] SIDS risk is reduced by putting babies to sleep on their backs.[58] The UDOH, Maternal and Infant Health Program is currently: reviewing data obtained from the Pregnancy Risk Assessment Monitoring System (PRAMS) and the Perinatal Mortality Review Program (PMRP) to identify modifiable risk factors for infant mortality and develop appropriate interventions; making health information available online to increase awareness of factors associated with infant death; educating prenatal health care providers to help pregnant clients quit smoking; promoting preconception and interconception health care for all women of childbearing age, with special emphasis on attaining and maintaining a healthy weight; and disseminating information on 17P, a newer drug to help prevent recurrent preterm birth. The UDOH, Baby Your Baby program offers information about preparing for pregnancy and having a healthy pregnancy at www.babyyourbaby.org and 1-800-826-9662. The UDOH, WIC (Women, Infants and Children) Program offers nutrition support to pregnant women who meet household income guidelines. Information about these guidelines can be found at http://health.utah.gov/wic/apply.html.

Utah Infant Mortality, 2004-2007

Race/Ethnicity	Average Annual # Infant Deaths	Average Annual Live Births	Crude Rate/1,000 Live Births (95% CI Range)	Sig.*
All Utah Infants	238	52,677	4.5 (4.2- 4.8)	n/a
American Indian/Alaska Native	3	688	4.7 (2.2- 7.3)	
Asian	4	935	4.5 (2.4- 6.7)	
Black or African American	4	475	8.4 (4.3- 12.5)	
Native Hawaiian/Pacific Islander	6	679	8.8 (5.3- 12.4)	↑
White	218	49,321	4.4 (4.1- 4.7)	
Hispanic or Latino	41	8,021	5.1 (4.3- 5.9)	
Non-Hispanic	195	44,394	4.4 (4.1- 4.7)	

Source: Utah Birth Certificate Database

*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Note: The race/ethnicity data reported here use a linked birth/death file and may underestimate the race-specific infant mortality rate.
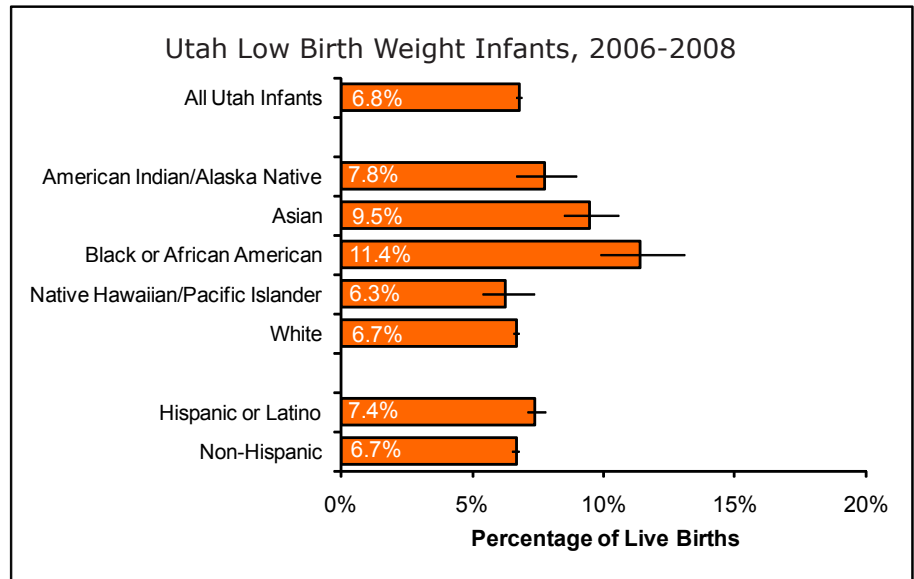
Contact: UDOH Maternal and Infant Health Program, 801-538-9970, http://health.utah.gov/mihp/

Health of Mothers and Infants

Low Birth Weight

Why Is It Important?

Low birth weight increases the risk for infant mortality and morbidity. As birth weight decreases, the risk for death increases. Low birth weight infants who survive often require intensive care at birth, may develop chronic illnesses, and later may require special education services. Health care costs and length of hospital stay are higher for low birth weight infants.[59] Low birth weight infants are those weighing less than 2,500 grams (about 5.5 pounds).

How Are We Doing?

- From 2006-2008, 6.8% of all Utah live births were low birth weight babies.
- The Utah low birth weight rate is lower than the U.S. low birth weight rate.[59]
- Babies born to Asian, Black/African American and Hispanic/Latina mothers had significantly higher rates of low birth weight than all Utah infants.
- As in Utah, the U.S. Black/African American low birth weight rate is much higher than the overall low birth weight rate.[60]

Utah Low Birth Weight Infants, 2006-2008

Category	Percentage
All Utah Infants	6.8%
American Indian/Alaska Native	7.8%
Asian	9.5%
Black or African American	11.4%
Native Hawaiian/Pacific Islander	6.3%
White	6.7%
Hispanic or Latino	7.4%
Non-Hispanic	6.7%

Percentage of Live Births

How Can We Improve?

Risk for having low birth weight babies is reduced by managing chronic diseases, maintaining a healthy weight prior to pregnancy, getting early and adequate prenatal care, avoiding alcohol and tobacco during pregnancy, and adequately spacing subsequent pregnancies.[59] The UDOH, Maternal and Infant Health Program encourages preconception care to assist women in achieving optimal pregnancy spacing and attaining healthy pre-pregnancy weight. The UDOH, Baby Your Baby program offers information about preparing for pregnancy and having a healthy pregnancy at www.babyyourbaby.org and 1-800-826-9662. The UDOH, WIC (Women, Infants and Children) Program offers nutrition support to pregnant women who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/wic/apply.html. The UDOH, Tobacco Prevention and Control Program and UDOH, Medicaid offer services to help pregnant women quit smoking.

Percentage of Live Born Infants With Low Birth Weight, Utah, 2006-2008

| Race/Ethnicity	Average Annual # LBW	Average Annual Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Infants	3,721	54,714	6.8% (6.7%- 6.9%)	n/a
American Indian/Alaska Native	56	723	7.8% (6.7%- 9.0%)	
Asian	94	994	9.5% (8.5%- 10.6%)	↑
Black or African American	62	541	11.4% (9.9%- 13.1%)	↑
Native Hawaiian/Pacific Islander	47	752	6.3% (5.4%- 7.4%)	
White	3,404	51,003	6.7% (6.6%- 6.8%)	
Hispanic or Latino	664	8,933	7.4% (7.1%- 7.8%)	↑
Non-Hispanic	3,030	45,495	6.7% (6.5%- 6.8%)	

Source: Utah Birth Certificate Database

*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Health of Mothers and Infants

Preterm Birth

Why Is It Important?

Preterm birth is the leading cause of perinatal death in otherwise normal newborns. Babies born preterm also have increased risks for long term morbidities and often require intensive care after birth. Average hospital stays for preterm infants without complications are three times longer than for a term infant, and for a preterm birth with complications, hospital stays are more than eight times longer.[61] Preterm birth infants are those born at less than 37 weeks gestation.

Preterm Birth, Utah, 2008
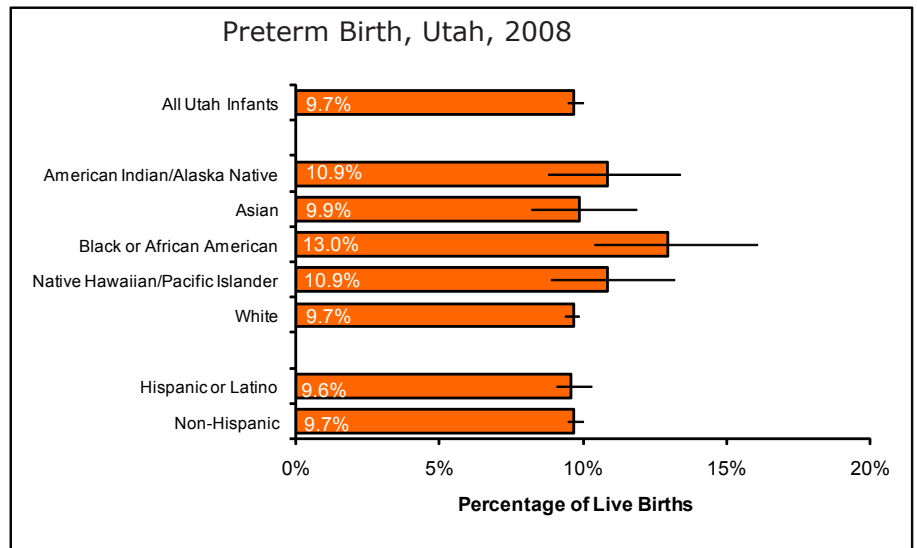
How Are We Doing?

- In 2008, 9.7% of all Utah live births were preterm.
- The Utah preterm birth rate is lower than the U.S. preterm birth rate.[61]
- Babies born to Black/African American mothers had significantly higher rates of preterm birth than all Utahns.

How Can We Improve?

Risk for having preterm babies can be reduced by maintaining a healthy weight prior to pregnancy, getting early and adequate prenatal care, avoiding alcohol and tobacco during pregnancy, staying current on immunizations, and adequately spacing subsequent pregnancies. Pregnant women who have had a previous spontaneous preterm birth, particularly in the immediately preceding pregnancy, should be offered a progesterone supplement beginning at 16-20 weeks gestation.[61] The UDOH, Maternal and Infant Health Program encourages preconception care to assist women in achieving optimal pregnancy spacing and attaining healthy pre-pregnancy weight. The UDOH, Baby Your Baby program offers information about preparing for pregnancy and having a healthy pregnancy at www.babyyourbaby.org and 1-800-826-9662. The UDOH, WIC (Women, Infants and Children) Program offers nutrition support to pregnant women who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/wic/apply.html.

Percentage of Live Infants Born at Less Than 37 Weeks Gestation, Utah, 2008

Race/Ethnicity	# Preterm	Total Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Infants	5,401	55,605	9.7% (9.5%- 10.0%)	n/a
American Indian/Alaska Native	80	735	10.9% (8.8%- 13.4%)	
Asian	104	1,054	9.9% (8.2%- 11.9%)	
Black or African American	74	570	13.0% (10.4%- 16.1%)	↑
Native Hawaiian/Pacific Islander	90	828	10.9% (8.9%- 13.2%)	
White	4,979	51,573	9.7% (9.4%- 9.9%)	
Hispanic or Latino	915	9,493	9.6% (9.1%- 10.3%)	
Non-Hispanic	4,456	45,761	9.7% (9.5%- 10.0%)	

Source: Utah Birth Certificate Database

*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Maternal and Infant Health Program, 801-538-9970, http://health.utah.gov/mihp/

Obesity in Pregnancy

Why Is It Important?
Women who are not at a healthy weight prior to pregnancy are at increased risk of poor outcomes, such as preterm birth.[61,62] Women who are obese prior to pregnancy have longer hospital stays and higher utilization of medical care during pregnancy.[62] Obesity is defined as having a body mass index (BMI) of 30.0 or greater prior to pregnancy.

How Are We Doing?
- From 2007-2008, 15.9% of Utah childbearing women over 18 years-old were obese prior to pregnancy.
- The percentage of adult women with an obese pre-pregnancy BMI increased by more than 60% from 1993 to 2008.[62] The overall Utah adult obesity rate, including men and non-childbearing women, also increased steadily over the same time period.[36]
- American Indian/Alaska Native, Native Hawaiian/Pacific Islander and Hispanic/Latina Utah mothers had significantly higher rates of obesity in pregnancy than all Utahns.
- Asian Utah mothers had significantly lower rates of obesity in pregnancy than all Utahns.

Obese Utah Childbearing Women 18+, 2007-2008

Race/Ethnicity	Percentage of Live Births
All Utah Live Births	15.9%
American Indian/Alaska Native	27.9%
Asian	5.0%
Black or African American	16.6%
Native Hawaiian/Pacific Islander	39.5%
White	15.6%
Hispanic or Latino	17.0%
Non-Hispanic	15.7%

How Can We Improve?
Obese persons should lose about 1 to 2 pounds each week, up to 10% of initial body weight over six months, through healthy eating and physical activity. Faster weight loss does not achieve better long-term results.89 In 2008, the U.S. Centers for Disease Control and Prevention began funding the UDOH, Physical Activity, Nutrition, and Obesity (PANO) program to promote behaviors that contribute to healthy weight: physical activity, fruit and vegetable consumption and breastfeeding; and discourage excessive TV viewing and consumption of sugary beverages and high-energy-dense foods (high in fat or low in water). The UDOH, Maternal and Infant Health Program encourages preconception care to assist women in attaining healthy pre-pregnancy weight, as well as prenatal care throughout pregnancy. The UDOH, WIC (Women, Infants and Children) Program offers nutrition support to pregnant women who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/wic/apply.html.

Percentage of Live Births to Utah Women Age 18+ Who Were Obese in Pregnancy, 2007-2008

Race/Ethnicity	Average Annual # Obese	Average Annual Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Live Births	8,596	54,177	15.9% (15.6%- 16.1%)	n/a
American Indian/Alaska Native	192	688	27.9% (25.1%- 30.6%)	↑
Asian	50	982	5.0% (4.0%- 6.0%)	↓
Black or African American	91	545	16.6% (14.2%- 19.0%)	
Native Hawaiian/Pacific Islander	304	770	39.5% (36.4%- 42.6%)	↑
White	7,882	50,430	15.6% (15.4%- 15.9%)	
Hispanic or Latino	1,479	8,713	17.0% (16.4%- 17.6%)	↑
Non-Hispanic	7,107	45,180	15.7% (15.5%- 16.0%)	

Source: Utah Birth Certificate Database
*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Health of Mothers and Infants
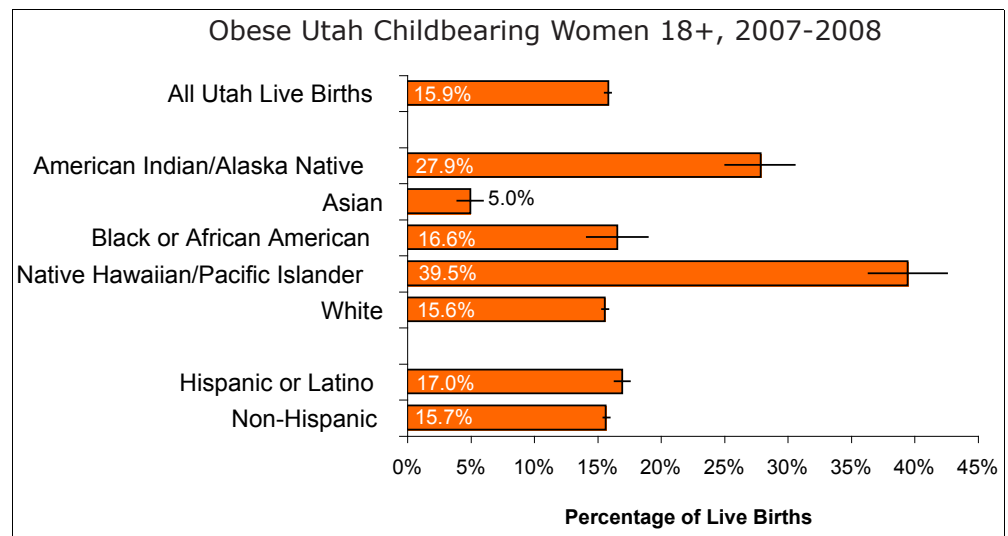
Smoking During Pregnancy

Why Is It Important?
Cigarette smoking during pregnancy increases the risk for premature rupture of membranes; abruption placentae; placenta previa; preterm birth, stillbirth; low birth weight; neonatal mortality; and Sudden Infant Death Syndrome.[42]

How Are We Doing?
- From 2007-2008, 4.0% of all Utah childbearing women smoked during the third trimester of pregnancy.

Infants Born to Women Who Smoked During Third Trimester, 2007-2008

All Utah Infants	4.0%
American Indian/Alaska Native	5.1%
Asian	1.4%
Black or African American	7.9%
Native Hawaiian/Pacific Islander	4.4%
White	4.1%
Hispanic or Latino	1.8%
Non-Hispanic	4.5%

Percentage of Live Births

- Black/African American mothers had a significantly higher rate of smoking during the third trimester of pregnancy than all Utahns.
- Asian and Hispanic/Latina Utah mothers had significantly lower rates of smoking during the third trimester of pregnancy than all Utahns.
- These data may underestimate smoking during pregnancy because of nondisclosure on birth certificates. An anonymous Utah survey, the Pregnancy Risk Assessment Monitoring System, found higher rates of smoking during pregnancy than the birth certificate database at the same time periods.[63] Birth certificate data are used in this report because birth certificates have a larger number of minority records for analysis by race and ethnicity.
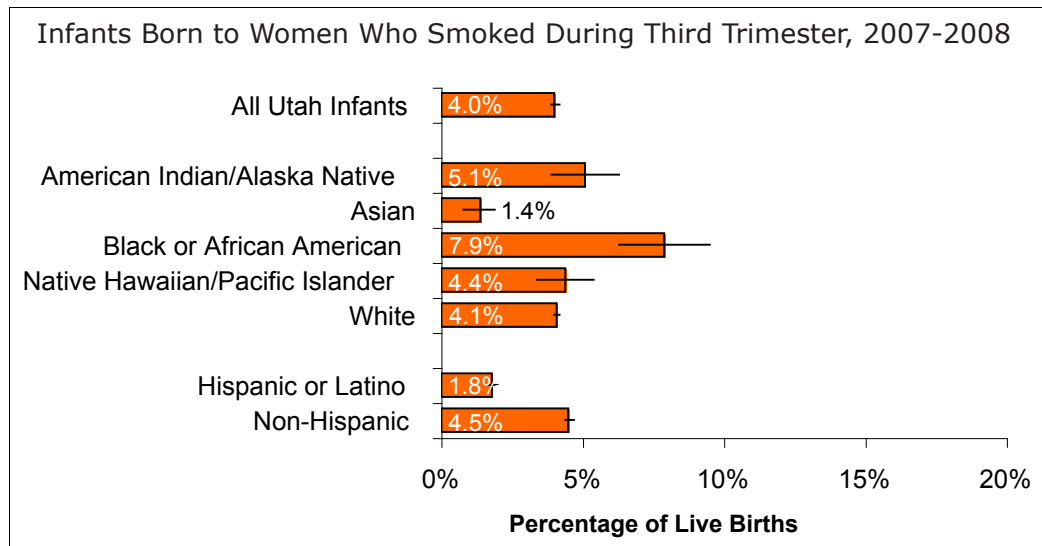
How Can We Improve?
Quitting smoking before or early in pregnancy reduces risk of poor birth outcomes. Birth weight decreases as the number of cigarettes smoked increases, so smoking cessation by the third trimester of pregnancy can eliminate much of the risk for low birth weight.[63] National guidelines explain how health care providers can improve smoking cessation during pregnancy.[64] The UDOH, Tobacco Prevention and Control Program (TPCP) funds statewide and local tobacco-use cessation services, including the Utah Tobacco Quit Line (1-888-567-TRUTH), the Spanish Utah Tobacco Quit Line (1-877-629-1585), a web-based cessation service (www.utahquitnet.com), and school and community-based programs for pregnant women. UDOH, Medicaid covers nicotine replacement therapy and contacts pregnant tobacco users every six weeks throughout pregnancy for cessation support. The Utah Department of Workforce Services screens all pregnant Medicaid applicants for tobacco use at the time of enrollment. The UDOH, Pregnancy Risk Line, 1-800-822-BABY (2229), answers questions about environmental exposures such as tobacco smoke that can potentially harm an embryo, fetus, or infant.

Percentage of Infants Born to Women Who Smoked During the Third Trimester of Pregnancy, 2007-2008

Race/Ethnicity	Average Annual # Born to Smokers	Average Annual Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Infants	2,237	55,334	4.0% (3.9%- 4.2%)	n/a
American Indian/Alaska Native	37	726	5.1% (3.9%- 6.3%)	
Asian	14	992	1.4% (0.8%- 1.9%)	↓
Black or African American	45	569	7.9% (6.3%- 9.5%)	↑
Native Hawaiian/Pacific Islander	35	783	4.4% (3.4%- 5.4%)	
White	2,102	51,477	4.1% (4.0%- 4.2%)	
Hispanic or Latino	166	9,281	1.8% (1.6%- 2.0%)	↓
Non-Hispanic	2,068	45,759	4.5% (4.4%- 4.7%)	↑

Source: Utah Birth Certificate Database

Gestational Diabetes

Why Is It Important?
Gestational diabetes refers to insulin resistance or carbohydrate intolerance that is first identified during pregnancy and usually disappears after delivery. Gestational diabetes increases the risk for pregnancy-induced hypertension, C-section delivery, and preterm birth. Women who have had gestational diabetes are at increased risk for developing type 2 diabetes. Their infants are at increased risk for birth complications and diabetes.[65,66]

Infants Born to Women Who Had Gestational Diabetes, 2008

Group	Percentage
All Utah Infants	3.1%
American Indian	7.2%
Asian	6.8%
Black or African American	2.6%
Pacific Islander	5.3%
White	2.9%
Hispanic or Latino	4.8%
Non-Hispanic	2.8%

Percentage of Live Births
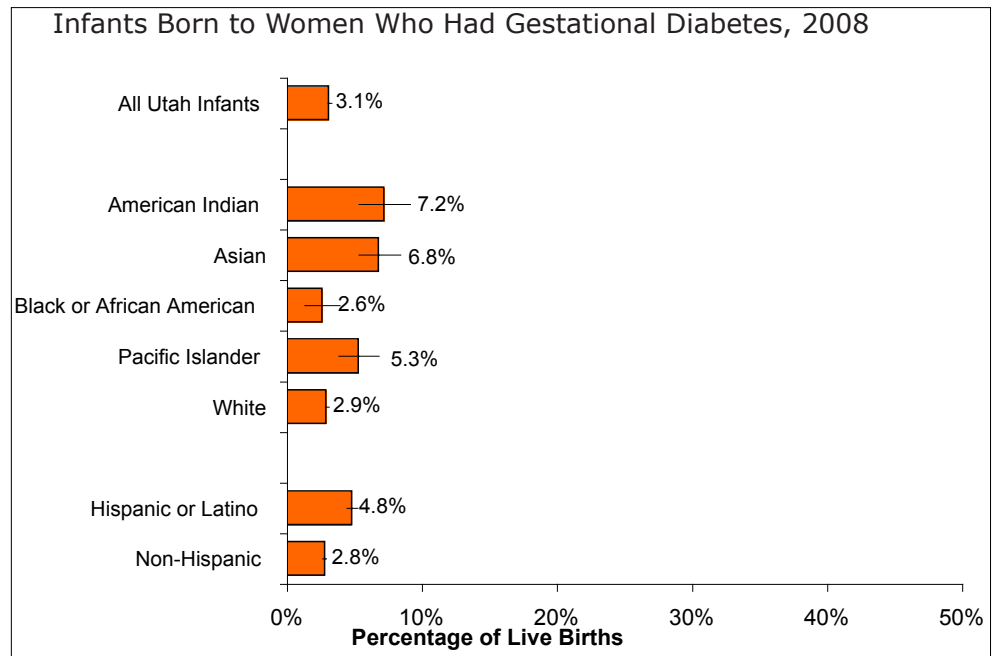
How Are We Doing?
- In 2008, 3.1% of all Utah births were affected by gestational diabetes.
- The Utah gestational diabetes rate has risen steadily over the past decade.[65]
- American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander and Hispanic/Latina Utah infants had significantly higher rates of gestational diabetes than all Utahns.

How Can We Improve?
Having a healthy pre-pregnancy weight reduces the risk for gestational diabetes.[65] The UDOH, Diabetes Prevention and Control Program (DPCP) Practice Recommendations recommend that most pregnant women be screened for gestational diabetes between the 24th and 28th weeks of pregnancy.[66] Early identification of gestational diabetes may reduce the risk of adverse birth outcomes and increase the likelihood that glucose levels might be managed through diet and exercise, without medications.[65] Women who are diagnosed with gestational diabetes should have their blood sugar level tested at their postpartum checkup to ensure that it has returned to normal. Women who had gestational diabetes can reduce their risk for developing type 2 diabetes by making lifestyle changes such as healthy eating, regular physical activity, and maintaining a healthy weight. The UDOH, Maternal and Infant Health Program encourages good preconception health to help women reduce their risk of gestational diabetes and contacts women who had gestational diabetes to encourage them to have their blood sugar levels tested at their postpartum checkup.

Percentage of Live Born Infants Born to Mothers Who Had Gestational Diabetes Mellitis (GDM), Utah, 2008

Race/Ethnicity	# Born to Mothers with GDM	Total Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Infants	1,734	55,605	3.1% (3.0%- 3.3%)	n/a
American Indian/Alaska Native	53	735	7.2% (5.3%- 9.1%)	↑
Asian	72	1,054	6.8% (5.3%- 8.4%)	↑
Black or African American	15	570	2.6% (1.3%- 3.9%)	
Native Hawaiian/Pacific Islander	44	828	5.3% (3.8%- 6.8%)	↑
White	1,510	51,593	2.9% (2.8%- 3.1%)	
Hispanic or Latino	455	9,493	4.8% (4.4%- 5.2%)	↑
Non-Hispanic or Latino	1,279	46,112	2.8% (2.6%- 2.9%)	

Source: Utah Birth Certificate Database
*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Folic Acid Consumption, Women Ages 18-44

Why Is It Important?
Consuming a multivitamin with folic acid daily from at least one month before conception through the first months of pregnancy can prevent most neural tube defects, such as anencephaly and spina bifida.

How Are We Doing?
- From 1999-2004, 2006 and 2008, 46.9% of Utah women ages 18-44 reported taking folic acid (age-adjusted rate).
- Native Hawaiian/Pacific Islander and Hispanic/Latina Utah women ages 18-44 had significantly lower age-adjusted rates of folic acid consumption than all Utah women in this age group.
- Hispanic/Latino Utah infants had a significantly higher rate of neural tube defects (10.3/10,000 births) than all Utah infants (7.7/10,000 births). (Utah Birth Defect Network, 1994-2008)
- From 2004-2008, about one-third of Utah births resulted from unintended pregnancies, demonstrating the need for women of childbearing age to take folic acid even when they are not planning a pregnancy.
(See page 54)
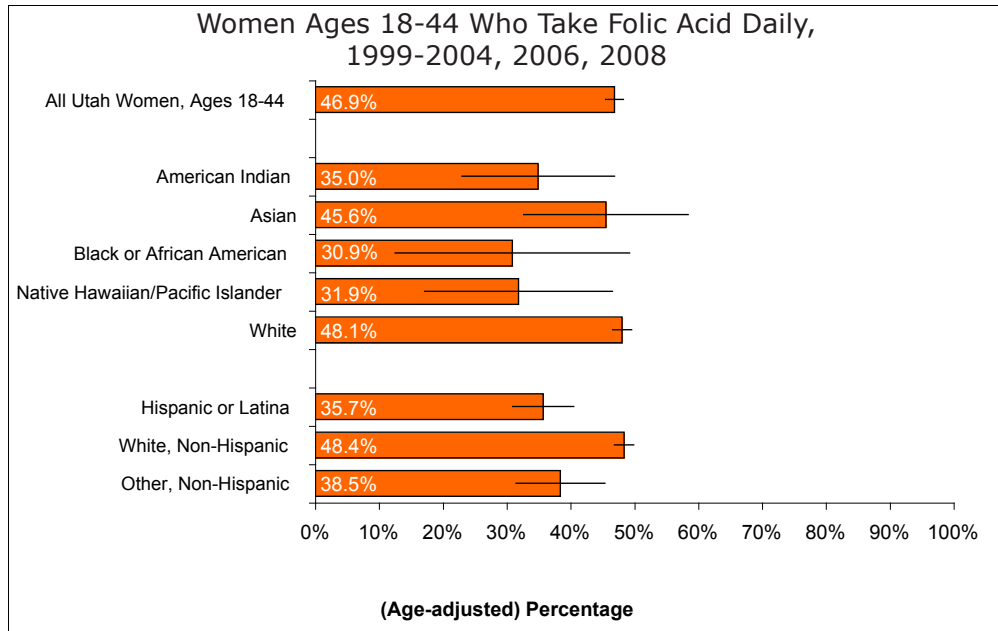
How Can We Improve?
All women of childbearing age should take a daily supplement containing 400 micrograms of folic acid.[68] Taking folic acid after a woman learns she is pregnant is too late to prevent a neural tube defect. The UDOH, Utah Birth Defect Network has implemented a federally funded folic acid educational program targeting WIC (Women, Infants and Children) clients to increase consumption.

Women Ages 18-44 Who Take Folic Acid Daily, 1999-2004, 2006, 2008

Percentage of Utah Women Age 18-44 Who Reported Taking Folic Acid Daily, 1999-2004, 2006, 2008

Race/Ethnicity	Sample Size	Total Female Population Ages 18-44	Number Taking Folic Acid	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Women 18-44	8,815	531,447	249,242	46.2% (44.8%- 47.6%)	46.9% (45.5% - 48.3%)	n/a
American Indian/Alaska Native	123	8,108	2,834	34.7% (22.9%- 46.4%)	35.0% (23.0% - 46.9%)	
Asian	90	14,460	6,591	44.9% (31.1%- 58.8%)	45.6% (32.7% - 58.5%)	
Black or African American	37	6,217	1,921	35.6% (11.0%- 60.2%)	30.9% (12.5% - 49.3%)	
Native Hawaiian/Pacific Islander	51	4,377	1,396	31.8% (17.1%- 46.5%)	31.9% (17.2% - 46.6%)	↓
White	8,066	498,284	239,702	47.3% (45.8%- 48.8%)	48.1% (46.6% - 49.6%)	
Hispanic or Latina	684	60,571	21,652	34.6% (29.8%- 39.4%)	35.7% (31.0% - 40.5%)	↓
White, Non-Hispanic	7,757	440,861	213,524	47.7% (46.2%- 49.2%)	48.4% (46.9% - 49.9%)	
Other, Non-Hispanic	335	30,015	11,542	39.0% (31.7%- 46.3%)	38.5% (31.5% - 45.4%)	↓

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

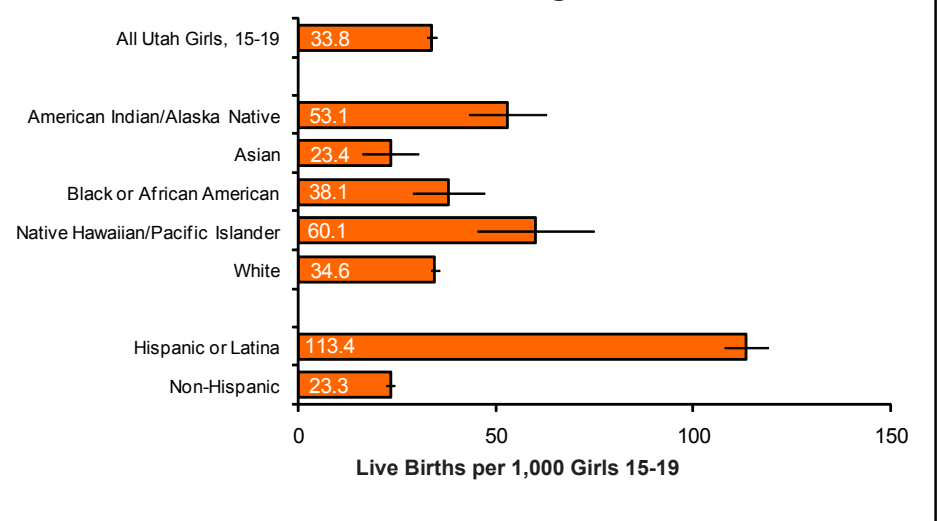*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Births to Adolescents

Why Is It Important?

Compared to babies born to older mothers, babies born to adolescent mothers are at higher risk of low birth weight and infant mortality. These babies are more likely to grow up in homes that offer lower levels of emotional support and cognitive stimulation and are less likely to earn a high school diploma. For the mothers, giving birth during adolescence is associated with limited educational attainment, which in turn can reduce future employment prospects and earning potential.[69]

Birth Rate to Utah Adolescent Girls Ages 15-19, 2008

Group	Rate
All Utah Girls, 15-19	33.8
American Indian/Alaska Native	53.1
Asian	23.4
Black or African American	38.1
Native Hawaiian/Pacific Islander	60.1
White	34.6
Hispanic or Latina	113.4
Non-Hispanic	23.3

Live Births per 1,000 Girls 15-19

How Are We Doing?

- In 2008, the rate of Utah girls age 15 to 19 who gave birth was 33.8 per 1,000.
- American/Indian Alaska Native, Native Hawaiian/Pacific Islander, and Hispanic/Latina girls had significantly higher rates of births to adolescents than all Utah girls.
- As in Utah, the U.S. Hispanic/Latina rate of births to adolescents is much higher than the overall rate of births to adolescents.[70]
- These rates include only live births that resulted from an adolescent pregnancy; the rates might be higher if miscarriages, abortions, and stillbirths were included.

How Can We Improve?

Teen pregnancy prevention programs with the strongest evidence of success are those that encourage abstinence as the safest choice for teens and also encourage those who do have sex to use contraception.[71] The Adolescent Health Network (AHN) is currently focusing on adolescent reproductive health, including teen pregnancy and sexually transmitted disease prevention. The UDOH, Maternal and Infant Health Program and its partners in AHN completed a comprehensive report about these topics in January 2010, which will guide future prevention efforts. The AHN developed, implemented, and evaluated "Parents Matter," an evidence-based parent intervention designed to promote positive parenting and effective parent-child communication about sexuality and sexual risk reduction for parents of 9-12 year-olds. The AHN was awarded a $15,000 grant from the CDC to pilot the Spanish language version of this program. The Parents Matter program will continue to be provided based on the availability of funds.

Birth Rate to Adolescent Girls Age 15-19, per 1,000 Girls, Utah, 2008

Race/Ethnicity	# Teen Births	# Girls 15-19	Crude Rate/1,000 Girls (95% CI Range)	Sig.*
All Utah Girls, 15-19	3,690	106,960	33.8 (32.7- 34.9)	n/a
American Indian/Alaska Native	107	2,015	53.1 (43.3- 62.9)	↑
Asian	41	1,750	23.4 (16.3- 30.5)	↓
Black or African American	65	1,708	38.1 (29.0- 47.1)	
Native Hawaiian/Pacific Islander	60	999	60.1 (45.3- 74.8)	↑
White	3,392	98,042	34.6 (33.5- 35.7)	
Hispanic or Latina	1,424	12,563	113.4 (107.8- 118.9)	↑
Non-Hispanic	2,287	94,397	23.3 (22.4- 24.2)	↓

Source: Utah Birth Certificate Database. Population Estimates: UDOH Office of Public Health Assessment.
*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Unintended Pregnancy

Why Is It Important?
Women whose pregnancies are unintended are less likely to obtain early prenatal care, consume folic acid to prevent neural tube defects, and avoid substances that could harm the fetus than women with planned pregnancies.[72] Unintended pregnancy includes births that women reported as wanting later or not at any time in the future.

How Are We Doing?
- From 2004-2008, 32.7% of Utah childbearing women reported that their pregnancies were unintended.
- American Indian/Alaska Native, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latina Utahns had significantly higher rates of unintended pregnancy than all Utahns.
- These rates include only live births that resulted from an unintended pregnancy; the rates might be higher if miscarriages, abortions, and stillbirths were included.
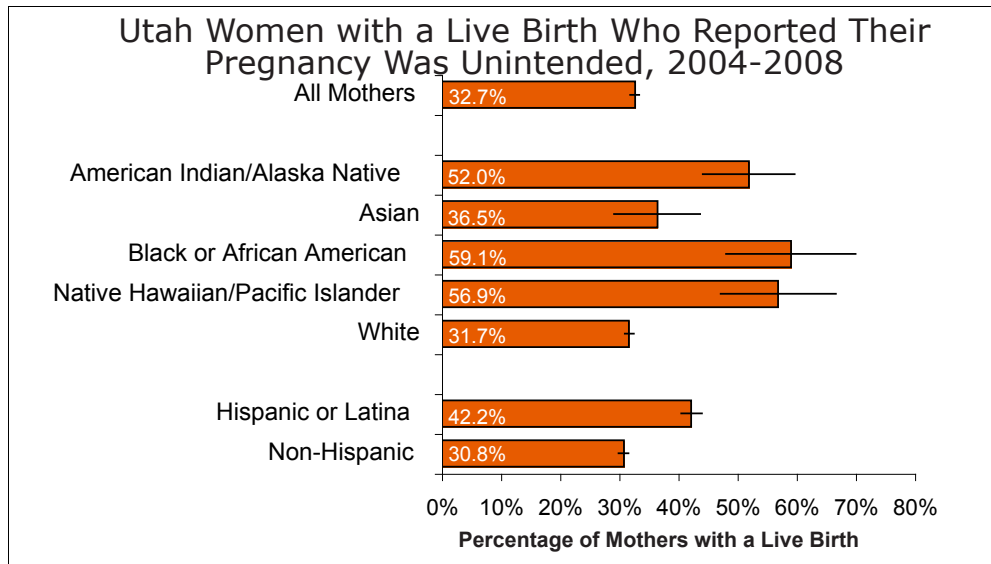
How Can We Improve?
Women should discuss contraception options, emergency contraception, and correct use of contraception with their health care providers. There are a number of clinics throughout the state which provide family planning services on a "sliding fee scale," based upon income and family size. Natural family planning methods also exist for couples who prefer not to use contraceptive drugs or devices. The UDOH, Maternal and Infant Health Program provides information about contraception, natural family planning, and family planning services in Utah.

Utah Women with a Live Birth Who Reported Their Pregnancy Was Unintended, 2004-2008

All Mothers	32.7%
American Indian/Alaska Native	52.0%
Asian	36.5%
Black or African American	59.1%
Native Hawaiian/Pacific Islander	56.9%
White	31.7%
Hispanic or Latina	42.2%
Non-Hispanic	30.8%

Percentage of Mothers with a Live Birth

Percentage of Utah Women with a Live Birth Who Reported Their Pregnancy Was Unintended, 2004-2008

Race/Ethnicity	Sample Size	Average Annual Live Births	Estimated Annual# Unintended	Crude Rate (95% CI Range)	Sig.*
All Utah Women with a Live Birth	9,374	51,635	16,868	32.7% (31.6%- 33.7%)	n/a
American Indian/Alaska Native	117	562	292	52.0% (41.9%- 62.1%)	↑
Asian	150	860	314	36.5% (27.6%- 45.5%)	
Black or African American	68	311	184	59.1% (45.4%- 72.7%)	↑
Native Hawaiian/Pacific Islander	98	553	315	56.9% (46.0%- 67.9%)	↑
White	8,795	48,830	15,494	31.7% (30.7%- 32.8%)	
Hispanic or Latina	1,983	7,978	3,367	42.2% (39.7%- 44.7%)	↑
Non-Hispanic	7,315	43,657	13,375	30.8% (29.6%- 32.0%)	↓

Source: Pregnancy Risk Assessment Monitoring System. Average Annual Live Births Data: Utah Birth Certificate Database.
*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
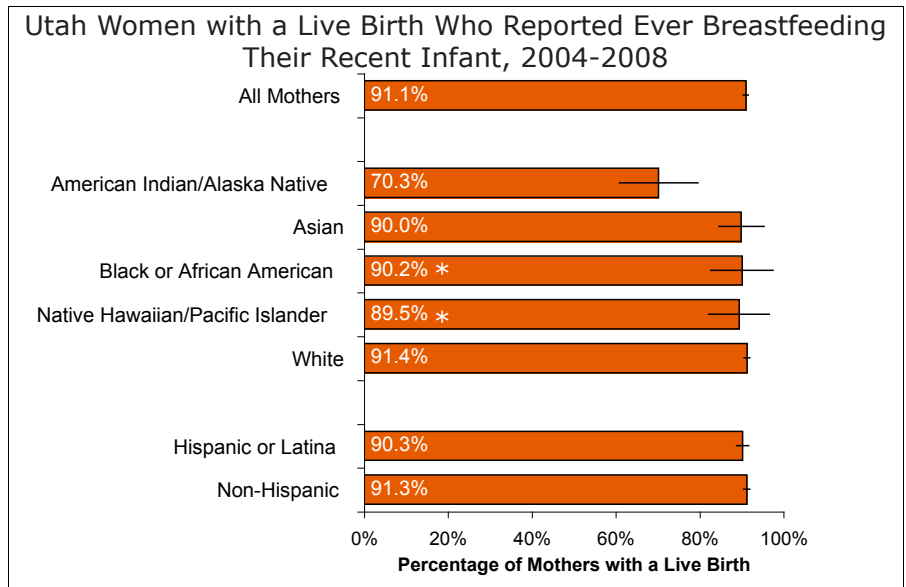
Ever Breastfeeding

Why Is It Important?
Breastfeeding is one of the most important contributors to infant health, benefitting the infant's growth, immunity, and development. Breastfeeding improves maternal health and contributes economic benefits to the family, health care system, and workplace.[73] For the first few days of an infant's life, a mother produces colostrum, which protects the infant against infection and disease and reduces risk of jaundice.[74]

How Are We Doing?
- From 2004-2008, 91.1% of Utah women with a live birth reported that they ever breastfed their most recent infant.
- American Indian/Alaska Native Utah women had a significantly lower rate of ever breastfeeding than all Utahns.

Utah Women with a Live Birth Who Reported Ever Breastfeeding Their Recent Infant, 2004-2008

Race/Ethnicity	Percentage
All Mothers	91.1%
American Indian/Alaska Native	70.3%
Asian	90.0%
Black or African American	90.2% *
Native Hawaiian/Pacific Islander	89.5% *
White	91.4%
Hispanic or Latina	90.3%
Non-Hispanic	91.3%

Percentage of Mothers with a Live Birth

How Can We Improve?
The American Academy of Pediatrics recommends exclusive breastfeeding for approximately the first six months of a baby's life and continued breastfeeding for at least the first year.[75] Babies should be breastfed for the first time within the first hour of their births.[76] Mothers should breastfeed whenever their baby shows signs of hunger, such as searching for the breast, making sucking noises, or sucking on their fists. The more a woman breastfeeds, the more milk she will make.[74] Lactation consultants can help mothers learn how to breastfeed effectively and comfortably. The UDOH, WIC (Women, Infants and Children) Program offers lactation consultation and pumps and other equipment to support breastfeeding to women who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/wic/apply.html. Breastfeeding mothers in WIC may stay in the WIC program longer than non-breastfeeding mothers and receive an enhanced food package. The UDOH, Baby Your Baby program offers information about breastfeeding at www.babyyourbaby.org and 1-800-826-9662. The Utah Breastfeeding Coalition promotes workplace, health care and public policies that foster a positive environment for breastfeeding. The UDOH, Pregnancy Risk Line, 1-800-822-BABY (2229) is a free, confidential telephone information service answering questions about medicines, drugs, chemicals, and other environmental exposures that can potentially harm an infant.

Percentage of Utah Women with a Live Birth Who Reported Ever Breastfeeding Their Most Recent Infant, 2004-2008

Race/Ethnicity	Sample Size	Avg Annual # Women w/ a Live Birth	Estimated Annual # Ever Breast-feeding	Crude Rate (95% CI Range)	Sig.**
All Utah Women with a Live Birth	9,160	50,931	46,414	91.1% (90.5%- 91.7%)	n/a
American Indian/Alaska Native	117	559	393	70.3% (60.9%- 79.6%)	↓
Asian	142	835	751	90.0% (84.6%- 95.3%)	
Black or African American	65	304	274*	90.2%* (82.8%- 97.7%)	
Native Hawaiian/Pacific Islander	92	533	477*	89.5%* (82.3%- 96.7%)	
White	8,602	48,202	44,080	91.4% (90.8%- 92.1%)	
Hispanic or Latina	1,943	7,872	7,106	90.3% (88.8%- 91.7%)	
Non-Hispanic	7,142	42,830	39,104	91.3% (90.6%- 92.0%)	

Source: Pregnancy Risk Assessment Monitoring System. Average Annual Live Births Data: Utah Birth Certificate Database.

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.
**The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
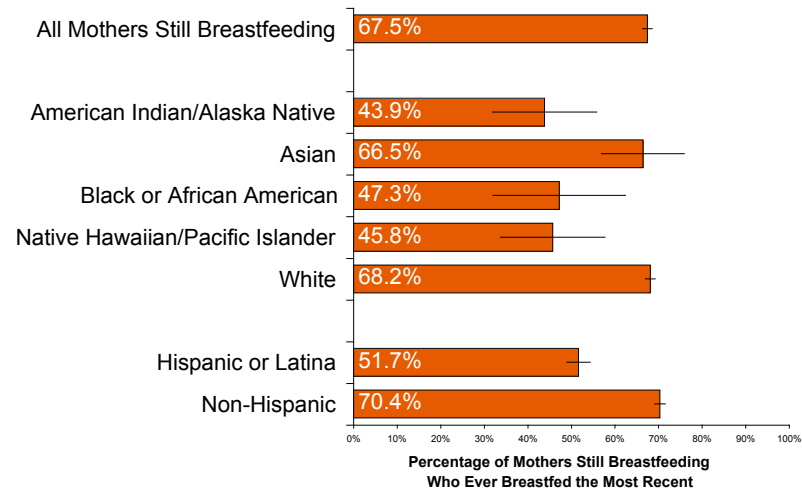
Still Breastfeeding 2-6 Months Postpartum

Why Is It Important?

Breastfeeding is one of the most important contributors to infant health. It also provides economic and health benefits for the mother.[73] Babies who are exclusively breastfed until six months old are less likely to develop ear infections, diarrhea, and respiratory illnesses. They may also be less likely to develop childhood obesity.[76]

How Are We Doing?

- From 2004-2008, 67.5% of Utah childbearing women who had ever breastfed their most recent infant reported that they had were still breastfeeding at the time of survey, two-six months postpartum.

- American Indian/Alaska Native, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latina Utahns had significantly lower rates of continuing breastfeeding than all Utah breastfeeding women.

- American Indian/Alaska Native Utahns also had a low rate of breastfeeding initiation. Only 35.4% of their infants benefitted from breastfeeding 2-6 months postpartum. (See page 55.)

How Can We Improve?

The American Academy of Pediatrics recommends exclusive breastfeeding for approximately the first six months of a baby's life and continued breastfeeding for at least the first year.[75] Even after returning to work or school, pumping and storing breast milk makes it possible to continue providing breast milk. The UDOH, WIC (Women, Infants and Children) Program offers lactation consultation and pumps and other equipment to support breastfeeding to women who meet household income guidelines. Information about these guidelines can be found at health.utah.gov/ wic/apply.html. Breastfeeding mothers in WIC may stay in the WIC program longer than non-breastfeeding mothers and receive an enhanced food package. The UDOH, Baby Your Baby program offers information about breastfeeding at www.babyyourbaby.org and 1-800-826-9662. The Utah Breastfeeding Coalition promotes workplace, health care and public policies that foster a positive environment for breastfeeding.

Percentage Still Breastfeeding 2-6 Months Postpartum, 2004-2008

Category	Percentage
All Mothers Still Breastfeeding	67.5%
American Indian/Alaska Native	43.9%
Asian	66.5%
Black or African American	47.3%
Native Hawaiian/Pacific Islander	45.8%
White	68.2%
Hispanic or Latina	51.7%
Non-Hispanic	70.4%

Percentage of Mothers Still Breastfeeding Who Ever Breastfed the Most Recent

Among Utah Women Who Reported Ever Breastfeeding Their Most Recent Infant, Percentage Who Had Stopped Breastfeeding by Time of Survey (2-6 Months Postpartum), 2004-2008

Race/Ethnicity	Sample Size	Avg Annual # of Infants Ever Breastfed	Estimated # Still Breast-feeding	Crude Rate (95% CI Range)	Sig.*
All Utah Women with a Live Birth Who Ever Breastfed Their Most Recent Infant	8,155	46,145	31,167	67.5% (66.5%-68.6%)	n/a
American Indian/Alaska Native	84	393	173	43.9% (31.9%-55.9%)	↓
Asian	124	751	500	66.5% (57.1%-76.0%)	
Black or African American	57	273	129	47.3% (32.1%-62.5%)	↓
Native Hawaiian/Pacific Islander	83	477	219	45.8% (33.9%-57.8%)	↓
White	7,683	43,813	29,893	68.2% (67.1%-69.3%)	
Hispanic or Latina	1,731	7,041	3,639	51.7% (49.0%-54.4%)	↓
Non-Hispanic	6,357	38,900	27,397	70.4% (69.2%-71.6%)	↑

Source: Pregnancy Risk Assessment Monitoring System. Average Annual Live Births Data: Utah Birth Certificate Database.
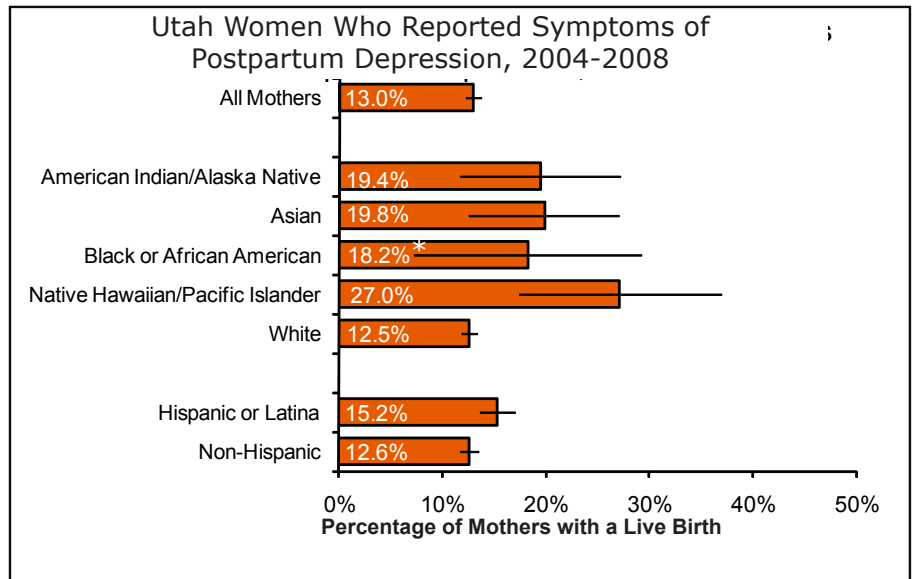
*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Postpartum Depression

Why Is It Important?

Postpartum depression is the most common complication related to childbirth.[72] Postpartum depression can affect a woman's health, her relationships with spouse/partner and children and the brain development of her baby and her other children.[77] Postpartum depression is different from the baby blues, which involves mild depressive symptoms shortly after pregnancy. Women who experience postpartum depression tend to experience more severe symptoms which can last much longer.[78]

Utah Women Who Reported Symptoms of Postpartum Depression, 2004-2008

Group	Percentage
All Mothers	13.0%
American Indian/Alaska Native	19.4%
Asian	19.8%
Black or African American	18.2%*
Native Hawaiian/Pacific Islander	27.0%
White	12.5%
Hispanic or Latina	15.2%
Non-Hispanic	12.6%

Percentage of Mothers with a Live Birth

How Are We Doing?

- From 2004-2008, 13.0% of Utah childbearing women reported symptoms of postpartum depression.
- Native Hawaiian/Pacific Islander and Hispanic/Latina Utahns had significantly higher rates of postpartum depression than all Utah childbearing women.

How Can We Improve?

Signs of postpartum depression may include sadness, fear, anxiety, difficulty making decisions, not taking care of self or family, and feelings about harming self or children. Symptoms can begin any time in the first year after giving birth and will last longer than the first two weeks following childbirth. Effective treatments, such as counseling and medications, are available for postpartum depression. Lifestyle changes, such as asking family or friends to help with childcare and housework, eating nutritious foods, and exercising can also help combat postpartum depression.[78] The UDOH, Baby Your Baby program offers information about postpartum depression at www.babyyourbaby.org and 1-800-826-9662. The UDOH, Pregnancy Risk Line, 1-800-822-BABY (2229), is a free, confidential telephone information service answering questions about medicines, drugs, chemicals, and other environmental exposures that can potentially harm an embryo, fetus, or infant.

Percentage of Utah Women Who Reported Symptoms of Postpartum Depression (PPDS), 2004-2008

Race/Ethnicity	Sample Size	Average Annual # of Women with a Live Birth	Estimated Annual Number with PPDS	Crude Rate (95% CI Range)	Sig.**
All Utah Women with a Live Birth	9,517	52,300	6,789	13.0% (12.2%- 13.7%)	n/a
American Indian/Alaska Native	120	577	112	19.4% (11.6%- 27.1%)	
Asian	151	870	172	19.8% (12.5%- 27.0%)	
Black or African American	69	314	57*	18.2%* (7.2%- 29.1%)	
Native Hawaiian/Pacific Islander	102	569	154	27.0% (17.3%- 36.8%)	↑
White	8,923	49,433	6,187	12.5% (11.8%- 13.3%)	
Hispanic or Latina	2,033	8,147	1,240	15.2% (13.5%- 17.0%)	↑
Non-Hispanic	7,405	43,909	5,512	12.6% (11.7%- 13.4%)	

Source: Pregnancy Risk Assessment Monitoring System. Average Annual Live Births Data: Utah Birth Certificate Database.
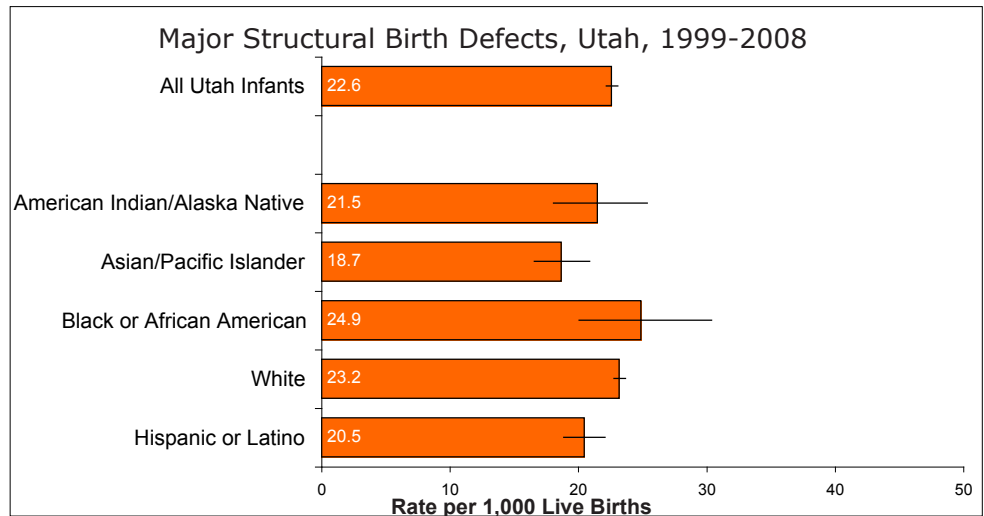*Use caution in interpreting; the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability.
**The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Major Structural Birth Defects

Why Is It Important?

Birth defects are a major cause of stillbirths and infant deaths. Children and adults with birth defects are also at increased risk for chronic illness, disability, and premature death. In Utah and the U.S., birth defects are the leading cause of infant mortality. They contribute to pediatric hospitalizations, chronic childhood illness, and developmental disabilities. Birth defects are a critical public health issue in Utah because it has the highest birth rate in the nation.[81]

Major Structural Birth Defects, Utah, 1999-2008

Race/Ethnicity	Rate per 1,000 Live Births
All Utah Infants	22.6
American Indian/Alaska Native	21.5
Asian/Pacific Islander	18.7
Black or African American	24.9
White	23.2
Hispanic or Latino	20.5

How Are We Doing?

- From 1999–2008, the rate of major structural birth defects in Utah was 22.6 per 1,000 births.
- This number is actually lower than the rate for all birth defects because every type of birth defect is not monitored.
- White Utah infants had a significantly higher rate of major structural birth defects than all Utahns.
- Asian/Pacific Islander and Hispanic/Latino Utah infants had significantly lower rates of major structural birth defects than all Utahns.

How Can We Improve?

To reduce the occurrence of birth defects among infants in Utah, primary prevention activities must be targeted at women in their childbearing years who are not yet pregnant. Each year, a new cohort of young women becomes capable of becoming pregnant. Improving one's health before becoming pregnant improves the odds of having a healthy baby. Some known strategies for reducing the risk of birth defects include taking a daily multivitamin with folic acid prior to pregnancy, maintaining a healthy pre-pregnancy weight, eating a healthy diet, and not smoking cigarettes and drinking alcohol. Women planning a pregnancy should consult their obstetric care provider about any medications they may be taking or chronic diseases (e.g., diabetes) they may have. More research is needed to determine how to prevent birth defects. The UDOH, Utah Birth Defect Network (UBDN) tracks all major birth defects to search for causes and promotes birth defect prevention such as using a multivitamin with folic acid before becoming pregnant to prevent spina bifida and other neural tube defects.

Utah Birth Defects per 1,000 Births, 1999-2008

Race/Ethnicity	Average Annual # with Birth Defects	Average Annual Live Births	Crude Rate/1,000 Live Births (95% CI Range)	Sig.*
All Utah Infants	1,153	50,678	22.6 (22.2- 23.1)	n/a
American Indian/Alaska Native	14	647	21.5 (18.1- 25.4)	
Asian/Pacific Islander	29	1,554	18.7 (16.6- 20.9)	↓
Black or African American	10	382	24.9 (20.1- 30.4)	
White	939	40,395	23.2 (22.8- 23.7)	↑
Hispanic or Latino	151	7,367	20.5 (18.9- 22.1)	↓

Source: Utah Birth Defect Network. Average Annual Live Births Data: Utah Birth Certificate Database.

*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
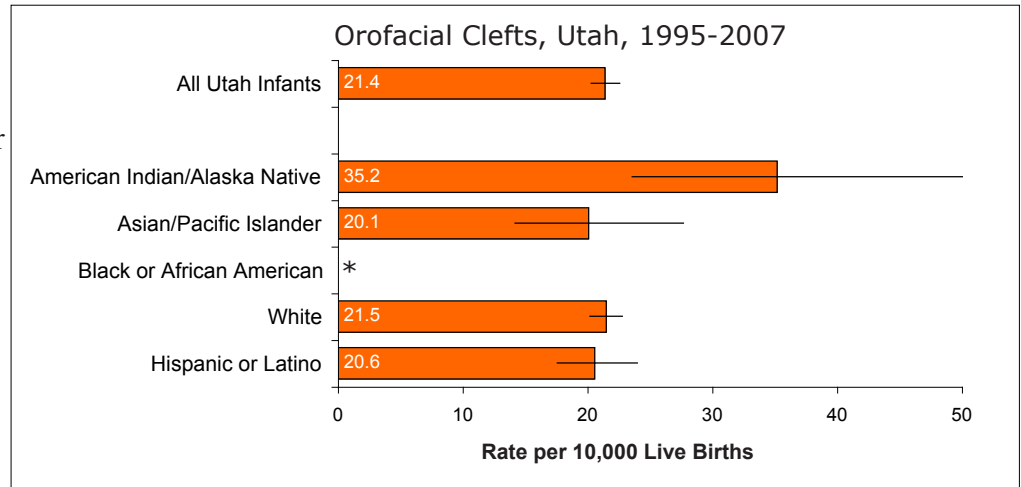
Note: Individuals were classified into only one racial/ethnic category.

Orofacial Clefts

Why Is It Important?

Orofacial clefts (cleft lip and/or cleft palate) are among the most common birth defects. They can occur alone or in combination with other defects and can significantly affect a child's health and well being. Children with orofacial clefts require medical and surgical services to treat the structural malformations. Even after surgery, these children are at increased risk of illness and disability, particularly with respect to hearing and communication, and may require long-term health and rehabilitation services to improve outcomes and reduce complications.[82]

Orofacial Clefts, Utah, 1995-2007

Race/Ethnicity	Rate per 10,000 Live Births
All Utah Infants	21.4
American Indian/Alaska Native	35.2
Asian/Pacific Islander	20.1
Black or African American	*
White	21.5
Hispanic or Latino	20.6

How Are We Doing?

- From 1995–2007, the rate of orofacial clefts in Utah was 21.4 per 10,000 births.
- American Indian/Alaska Native Utah infants had a significantly higher rate of orofacial clefts than all Utah infants.

How Can We Improve?

Utah has the highest rate of orofacial clefts in the U.S. To reduce the occurrence of orofacial clefts among infants in Utah, primary prevention activities must be targeted at women in their childbearing years who are not yet pregnant. Strategies for reducing the risk of orofacial clefts need to begin before a woman becomes pregnant. These strategies include taking a daily multivitamin with folic acid prior to pregnancy, maintaining a healthy pre-pregnancy weight, eating a healthy diet, controlling blood sugar if diabetic, and not smoking cigarettes and drinking alcohol. Women planning a pregnancy should always consult their obstetric care provider about any medications they may be taking or chronic diseases (e.g., diabetes) they may have. More research is needed to determine how to prevent birth defects. The UDOH, Utah Birth Defect Network (UBDN) tracks all major birth defects to search for causes and promotes birth defect prevention such as using a multivitamin with folic acid before becoming pregnant to prevent spina bifida and other neural tube defects.

Utah Infants with Orofacial Clefts per 10,000 Births, 1995-2007

Race/Ethnicity	Average Annual # with Clefts	Average Annual Live Births	Crude Rate/10,000 Live Births (95% CI Range)	Sig.**
All Utah Infants	102	47,763	21.4 (20.3- 22.6)	n/a
American Indian/Alaska Native	2	634	35.2 (23.6- 50.5)	↑
Asian/Pacific Islander	3	1,415	20.1 (14.2- 27.7)	
Black or African American	*	326	* (* - *)	
White	83	38,904	21.5 (20.2- 22.8)	
Hispanic or Latino	13	6,191	20.6 (17.6- 24.0)	

Source: Utah Birth Defect Network. Average Annual Live Births Data: Utah Birth Certificate Database.
*Due to low numbers, this rate is unreliable and has been suppressed.

**The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Note: Individuals were classified into only one racial/ethnic category.
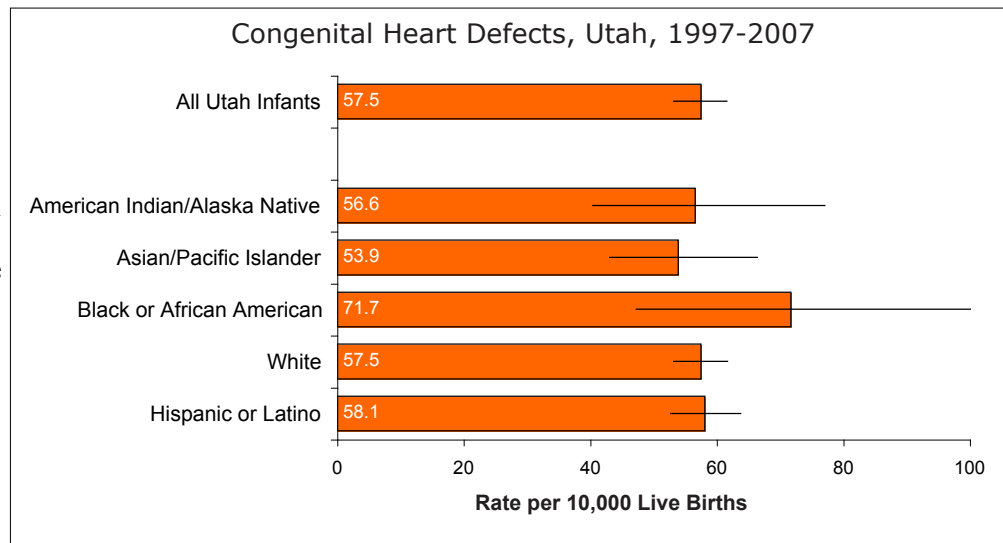

Congenital Heart Defects

Why Is It Important?

Congenital heart defects are the most common form of birth defects. Children with heart defects can be severely affected and can require complex surgical and medical treatment. Most children with complex heart defects survive to adulthood but continue to need special heart care throughout their lives.[85]

How Are We Doing?

- From 1997–2007, the rate of congenital heart defects in Utah was 57.5 per 10,000 births.
- There were no statistically significant differences in congenital heart defects by race and ethnicity.

Congenital Heart Defects, Utah, 1997-2007

Race/Ethnicity	Rate
All Utah Infants	57.5
American Indian/Alaska Native	56.6
Asian/Pacific Islander	53.9
Black or African American	71.7
White	57.5
Hispanic or Latino	58.1

Rate per 10,000 Live Births

How Can We Improve?

To reduce the occurrence of congenital heart defects among infants in Utah, primary prevention activities must be targeted at women in their childbearing years who are not yet pregnant. Strategies for reducing the risk of congenital heart defects need to begin before a woman becomes pregnant. These strategies include taking a daily multivitamin with folic acid prior to pregnancy, maintaining a healthy pre-pregnancy weight, eating a healthy diet, controlling blood sugar if diabetic, and not smoking cigarettes and drinking alcohol. Women planning a pregnancy should always consult their obstetric care provider about any medications they may be taking or chronic diseases (e.g., diabetes) they may have. Usually, the cause of a congenital heart defect is unknown.[85] More research is needed to determine how to identify modifiable risk factors in order to prevent congenital heart defects. The UDOH, Utah Birth Defect Network (UBDN) tracks all major birth defects to search for causes and promotes birth defect prevention such as using folic acid before becoming pregnant to prevent spina bifida and other neural tube defects.

Utah Infants with Congenital Heart Defects Per 10,000 Births, 1997-2007

Race/Ethnicity	Average Annual # with Heart Defects	Average Annual Live Births	Crude Rate/10,000 Live Births (95% CI Range)	Sig.*
All Utah Infants	282	49,028	57.5 (53.2- 61.6)	n/a
American Indian/Alaska Native	4	642	56.6 (40.4- 77.1)	
Asian/Pacific Islander	8	1,469	53.9 (43.1- 66.4)	
Black or African American	2	342	71.7 (47.3- 104.3)	
White	228	39,593	57.5 (53.2- 61.7)	
Hispanic or Latino	39	6,670	58.1 (52.7- 63.8)	

Source: Utah Birth Defect Network. Average Annual Live Births Data: Utah Birth Certificate Database.

*The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Note: Individuals were classified into only one racial/ethnic category.

INFECTIOUS DISEASES
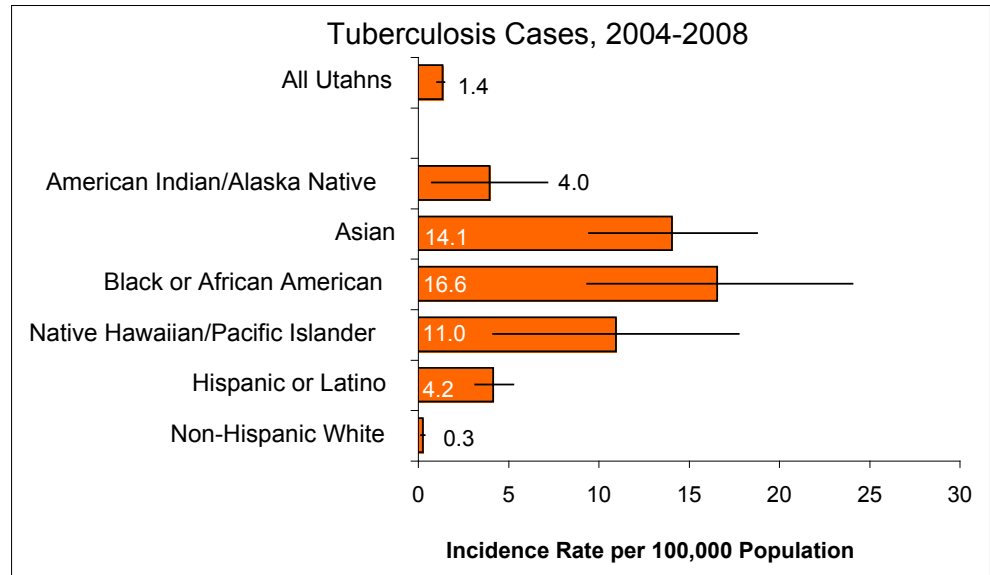
Infectious Diseases

Tuberculosis

Why Is It Important?
Tuberculosis (TB) usually attacks the lungs but may attack any part of the body. TB is spread through the air by breathing the germs of a person with active TB. People who have latent TB infection do not feel sick, do not have any symptoms and cannot spread TB but may develop active TB disease in the future.[87]

How Are We Doing?
- There were 1.4 new cases of TB in Utah per 100,000 population from 2004 to 2008.
- This rate is significantly lower than the U.S. tuberculosis incidence rate.[87]
- Asian, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latino Utahns had significantly higher rates of TB than all Utahns.
- Non-Hispanic White Utahns had a significantly lower rate of TB than all Utahns.
- 67% of persons diagnosed with TB in Utah were born outside of the U.S. and 90% of Black/African American persons with TB were individuals from Africa.[87]
- 15% of TB cases had resistance to one or more anti-tuberculosis medications.[87]
- HIV infection is the strongest risk factor for progression of latent TB infection to active TB disease. Of persons with TB in Utah, 5% were also infected with HIV. [87]

Tuberculosis Cases, 2004-2008

Race/Ethnicity	Incidence Rate per 100,000 Population
All Utahns	1.4
American Indian/Alaska Native	4.0
Asian	14.1
Black or African American	16.6
Native Hawaiian/Pacific Islander	11.0
Hispanic or Latino	4.2
Non-Hispanic White	0.3

How Can We Improve?
People who have been around someone who has TB disease should go to their health care provider or local health department for a tuberculin skin test. Early detection and treatment of TB are essential to control the spread of disease. To ensure effective treatment and prevent drug-resistant strains of TB bacteria, all patients with active TB disease are placed on directly observed therapy, where a health care worker watches the patient swallow each dose of TB medication. Because most people diagnosed with TB are from outside the U.S., the UDOH, TB Control and Refugee Health Program provides comprehensive health exams to all refugees within the first 30 days after arriving in the U.S., case management for refugees diagnosed with a communicable disease, and preventive health services. The Program also offers medical interpreter training free of charge to qualified interpreters working for health-related non-profit agencies throughout the state.

Utah Tuberculosis Cases, 2004-2008

Race/Ethnicity	Average Annual # of Cases	Average Annual Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	33	2,622,651	1.4 (1.2- 1.6)	n/a
American Indian/Alaska Native	1	29,965	4.0 (0.8- 7.2)	
Asian	7	49,671	14.1 (9.4- 18.8)	↑
Black or African American	4	24,143	16.6 (9.3- 23.9)	↑
Native Hawaiian/Pacific Islander	2	18,230	11.0 (4.1- 17.7)	↑
Hispanic or Latino	12	294,290	4.2 (3.2- 5.3)	↑
Non-Hispanic White	6	2,170,949	0.3 (0.2- 0.4)	↓

Source: UDOH Bureau of Epidemiology. Population Estimates: Governor's Office of Planning and Budget. Estimates are based on 2008 baseline economic and demographic projections.

* The rate for each racial/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
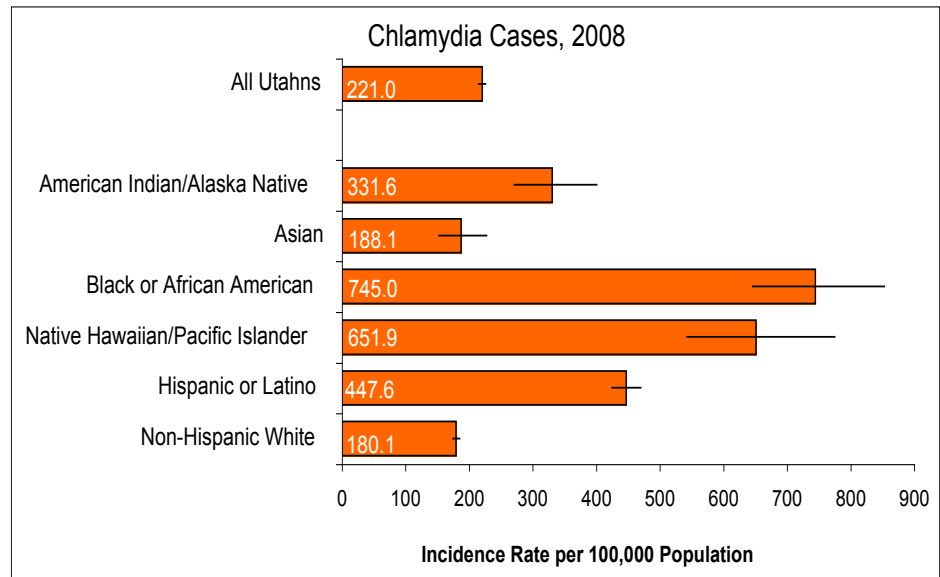
Note: Individuals were classified into only one racial/ethnic category.

Contact: UDOH Tuberculosis Control and Refugee Health Program, 801-538-6191, http://health.utah.gov/cdc/

Infectious Diseases

Chlamydia

Why Is It Important?

Chlamydia is the most frequently reported notifiable disease in the U.S. and more than two-thirds of cases occur among people age15-24. Untreated infections can lead to infertility. Pregnant women with chlamydia are at risk for preterm delivery and can pass the infection to their infant at birth, potentially causing eye problems and pneumonia. Untreated chlamydia in women can cause pelvic inflammatory disease and ectopic (tubal) pregnancy, which can be life-threatening conditions.[88,89]

Chlamydia Cases, 2008

Category	Rate
All Utahns	221.0
American Indian/Alaska Native	331.6
Asian	188.1
Black or African American	745.0
Native Hawaiian/Pacific Islander	651.9
Hispanic or Latino	447.6
Non-Hispanic White	180.1

Incidence Rate per 100,000 Population

How Are We Doing?

- There were 221.0 new cases of chlamydia in Utah per 100,000 population in 2008.
- This rate is significantly lower than the U.S. chlamydia incidence rate.[89]
- American Indian/Alaska Native, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latino Utahns had significantly higher rates of chlamydia than all Utahns.
- Non-Hispanic White Utahns had a significantly lower rate of chlamydia than all Utahns.
- Chlamydia rates in Utah and in the U.S. have increased over the last 15 years, at least partially due to improved screening, detection, and reporting.[89]

How Can We Improve?

Risk of chlamydia is reduced by not having sex or by having sex only with one uninfected partner who does not have sex with any other partners. People at risk should obtain regular sexually transmitted disease screenings.[88] For more information on testing and treatment of sexually transmitted diseases, see www.catchtheanswers.net and www.aidsinfoutah.net. Chlamydia infections commonly show no symptoms, but screening and treatment are available at local health district and community health clinics for minimal or no cost. Local public health nurses confidentially interview persons who test positive for chlamydia to educate the patient, ensure proper treatment, and obtain sexual partner information for follow-up. This process helps prevent disease spread and patient reinfection. The UDOH, HIV, STD and Viral Hepatitis C Prevention Program provides STD presentations, upon request, to a variety of organizations. Utah law allows adolescents ages 14-17 to be tested and treated for a sexually transmitted disease without parental consent.[89]

Utah Chlamydia Cases, 2008

Race/Ethnicity	# of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	6,147	2,781,954	221.0 (215.5- 226.6)	n/a
American Indian/Alaska Native	106	31,965	331.6 (271.5- 401.1)	↑
Asian	102	54,238	188.1 (153.3- 228.3)	
Black or African American	207	27,787	745.0 (646.9- 853.6)	↑
Native Hawaiian/Pacific Islander	127	19,482	651.9 (543.5- 775.6)	↑
Hispanic or Latino	1,510	337,353	447.6 (425.3- 470.8)	↑
Non-Hispanic White	4,090	2,271,077	180.1 (174.6- 185.7)	↓

Source: UDOH Bureau of Epidemiology. Population Estimates: Governor's Office of Planning and Budget. Estimates are based on 2008 baseline economic and demographic projections.

* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
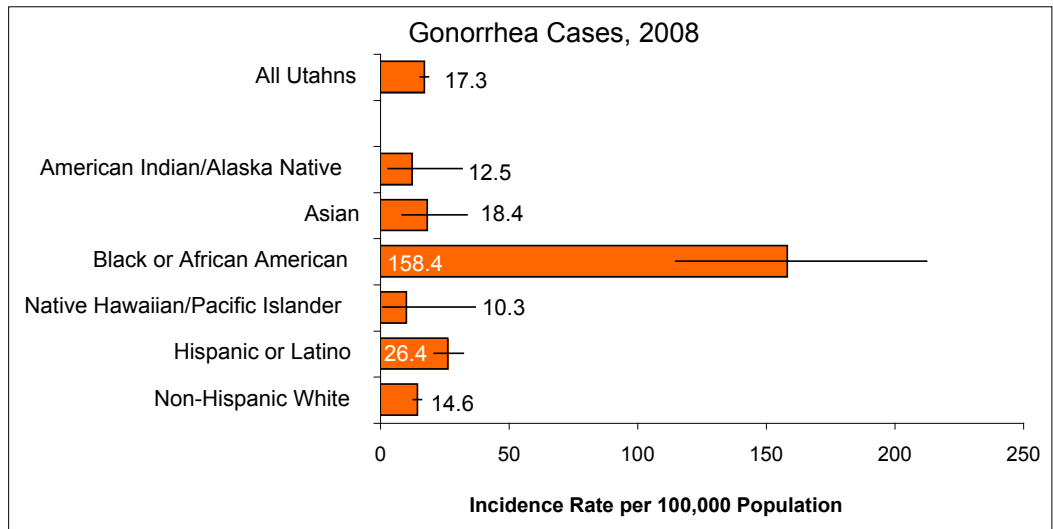
Note: Individuals were classified into only one racial/ethnic category.

Infectious Diseases

Gonorrhea

Why Is It Important?
Untreated gonorrhea can lead to infertility in both men and women. Pregnant women with gonorrhea are at risk for preterm delivery and can pass the infection to their infant at birth, potentially causing eye problems and pneumonia. Untreated gonorrhea in women can cause pelvic inflammatory disease and ectopic (tubal) pregnancy, which can be a life-threatening condition. Gonorrhea can spread to other parts of the body.[90,91]

Gonorrhea Cases, 2008

Group	Incidence Rate per 100,000 Population
All Utahns	17.3
American Indian/Alaska Native	12.5
Asian	18.4
Black or African American	158.4
Native Hawaiian/Pacific Islander	10.3
Hispanic or Latino	26.4
Non-Hispanic White	14.6

How Are We Doing?
- There were 17.3 new cases of gonorrhea in Utah per 100,000 population in 2008.
- This rate is significantly lower than the U.S. gonorrhea incidence rate.[91]
- Black/African American, and Hispanic/Latino Utahns had significantly higher rates of gonorrhea than all Utahns.
- Non-Hispanic White Utahns had a significantly lower rate of gonorrhea than all Utahns.

How Can We Improve?
Risk of gonorrhea is reduced by not having sex or by having sex only with one uninfected partner who does not have sex with any other partners. People at risk should obtain regular sexually transmitted disease screenings.[90] For more information on testing and treatment of sexually transmitted diseases, visit www.catchtheanswers.net and www.aidsinfoutah.net. Many gonorrhea infections show no symptoms, but screening and treatment are available at local health district and community health clinics for minimal or no cost. Local public health nurses confidentially interview persons who test positive for gonorrhea to educate the patient, ensure proper treatment, and obtain sexual partner information for follow-up. This process helps prevent disease spread and patient reinfection. The UDOH, HIV, STD and Viral Hepatitis C Prevention Program provides STD presentations, upon request, to a variety of organizations. Utah law allows adolescents ages 14-17 to be tested and treated for a sexually transmitted disease without parental consent.[91]

Utah Gonorrhea Cases, 2008

Race/Ethnicity	# of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	481	2,781,954	17.3 (15.8- 18.9)	n/a
American Indian/Alaska Native	4	31,965	12.5 (3.4- 32.0)	
Asian	10	54,238	18.4 (8.8- 33.9)	
Black or African American	44	27,787	158.4 (115.1- 212.6)	↑
Native Hawaiian/Pacific Islander	2	19,482	10.3 (1.2- 37.1)	
Hispanic or Latino	89	337,353	26.4 (21.2- 32.5)	↑
Non-Hispanic White	332	2,271,077	14.6 (13.1- 16.3)	↓

Source: UDOH Bureau of Epidemiology. Population Estimates: Governor's Office of Planning and Budget. Estimates are based on 2008 baseline economic and demographic projections.

* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Note: Individuals were classified into only one racial/ethnic category.
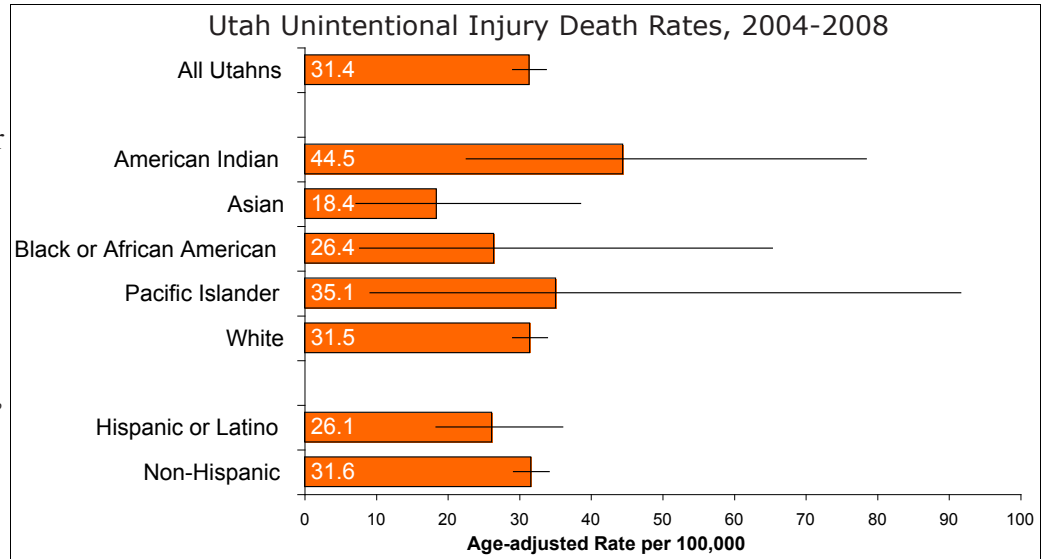
Contact: UDOH Sexually Transmitted Disease Control Program, 801-538-6191, http://health.utah.gov/cdc/std.htm

INJURY & VIOLENCE

Injury and Violence

Unintentional Injury Deaths

Why Is It Important?
In Utah, unintentional injuries are a leading cause of death and disability. They account for approximately 760 deaths and 9,500 hospitalizations each year. In addition, thousands of less severe injuries are being treated in doctor's offices, clinics, emergency departments, homes, schools, work sites, etc.[92] Unintentional injury deaths include motor vehicle crashes, falls, suffocation, poisoning, drowning and others.

Utah Unintentional Injury Death Rates, 2004-2008

Race/Ethnicity	Rate
All Utahns	31.4
American Indian	44.5
Asian	18.4
Black or African American	26.4
Pacific Islander	35.1
White	31.5
Hispanic or Latino	26.1
Non-Hispanic	31.6

Age-adjusted Rate per 100,000

How Are We Doing?
- Utah's age-adjusted unintentional injury death rate was 31.4 per 100,000 population from 2004 to 2008.
- There were no statistically significant differences in unintentional injury death rates by race and ethnicity.

How Can We Improve?
Most injuries can be prevented by choosing safe behaviors, using safety equipment, and obeying safety laws.[92] The UDOH, Violence and Injury Prevention Program (VIPP) collects and analyzes data to identify injury problems and recommended prevention strategies. VIPP is working with the Utah Department of Public Safety, Primary Children's Medical Center, and Utah's 12 local health departments to promote the use of safety belts, child safety seats, booster seats, and helmets. Student injury data are collected whenever students are injured seriously enough to require them to miss at least one-half day of school or be seen by a health care provider. The data are used to develop reports for the school districts to identify specific injury problems. The Safe Kids Utah Coalition (housed within VIPP) works to prevent unintentional injuries among children by raising community awareness, influencing policies, promoting safety, and establishing private/public partnerships.

Utah Unintentional Injury Deaths, 2004-2008

Race/Ethnicity	Average Annual Deaths	Total Population	Crude Rate/100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	720	2,615,129	27.5 (25.6- 29.6)	31.4 (29.1 - 33.8)	n/a
American Indian/Alaska Native	15	37,002	39.5 (21.9- 65.5)	44.5 (22.6 - 78.5)	
Asian	8	56,736	13.4 (5.6- 26.8)	18.4 (7.2 - 38.6)	
Black or African American	6	33,663	18.4 (6.9- 39.6)	26.4 (7.7 - 65.4)	
Native Hawaiian/Pacific Islander	6	21,538	26.9 (9.7- 59.4)	35.1 (9.2 - 91.7)	
White	686	2,466,190	27.8 (25.8- 30.0)	31.5 (29.1 - 34.0)	
Hispanic or Latino	61	294,552	20.6 (15.8- 26.5)	26.1 (18.4 - 36.1)	
Non-Hispanic	659	2,320,577	28.4 (26.3- 30.7)	31.6 (29.2 - 34.2)	

Source: Utah Death Certificate Database. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

*Age-adjusted to the U.S. 2000 standard population
** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

ICD10 Codes: V01-X59, Y85-Y86

Contact: UDOH Violence and Injury Prevention Program, (801) 538-6864, http://health.utah.gov/vipp/

☀ Injury and Violence

Motor Vehicle Traffic Crash Deaths

Why Is It Important?
Motor vehicle crashes are the second leading cause of injury death in Utah, after poisoning.[94,95]

How Are We Doing?
- Utah's age-adjusted motor vehicle crash death rate was 11.1 per 100,000 population from 2004 to 2008.
- There were no statistically significant differences in motor vehicle traffic crash death rates by race and ethnicity.

Utah Motor Vehicle Traffic Crash Death Rates, 2004-2008

Group	Rate
All Utahns	11.1
American Indian	22.4
Asian	8.4
Black or African American	14.9
Pacific Islander	15.4
White	11.0
Hispanic or Latino	14.1
Non-Hispanic	10.7

Age-adjusted Rate per 100,000

- Residents of rural areas have higher motor vehicle crash death rates than those residing in urban areas.[94]
- The Utah Department of Public Safety conducts an annual safety belt observational survey to determine safety belt use for Utah. Overall, safety belt use in Utah for 2007 was 86.8%, a slight decrease from the 2006 high of 88.6%.[95]
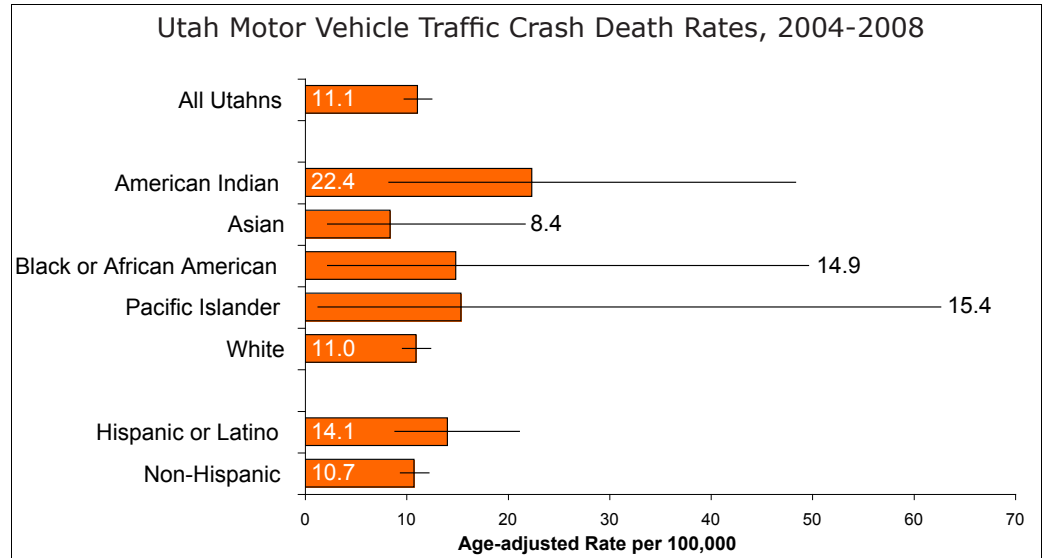
How Can We Improve?
Failing to buckle up contributes to more fatalities than any other traffic safety-related behavior.[95] Other major causes of traffic-related deaths include drowsy, distracted, aggressive, or impaired driving.[96] The Utah Safety Leadership Team is implementing engineering, enforcement, and education strategies such as the "Zero Fatalities" campaign to reduce motor vehicle crash deaths. The UDOH, Violence and Injury Prevention Program (VIPP) is partnering with Zero Fatalities, local health departments, the Utah Teen Traffic Safety Task Force, and other partners to focus on preventing teen motor vehicle-related crashes. VIPP is the lead agency for Safe Kids Utah, preventing child injuries. Inspections and instructions on the proper use of car seats, booster seats, and bicycle helmets are offered routinely to the public. Car seat checkpoints and helmet education and distribution are statewide. State laws promoting safety include graduated driver licensing requirements (since 1998), various laws promoting seat belt use (but no primary seat belt law), primary car seat and booster seat laws, a prohibition on texting and emailing while driving (since 2009), and laws prohibiting driving under the influence.[94]

Utah Motor Vehicle Traffic Crash Deaths, 2004-2008

Race/Ethnicity	Average Annual Deaths	Total Population	Crude Rate/100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	276	2,615,129	10.5 (9.3- 11.9)	11.1 (9.8- 12.5)	n/a
American Indian/Alaska Native	8	37,002	20.5 (8.6- 41.2)	22.4 (8.3- 48.4)	
Asian	4	56,736	7.8 (2.3- 19.1)	8.4 (2.2- 21.7)	
Black or African American	3	33,663	10.1 (2.4- 27.8)	14.9 (2.2- 49.6)	
Native Hawaiian/Pacific Islander	3	21,538	12.1 (2.1- 37.9)	15.4 (1.3- 62.7)	
White	258	2,466,190	10.5 (9.2- 11.8)	11.0 (9.6- 12.4)	
Hispanic or Latino	37	294,552	12.5 (8.8- 17.2)	14.1 (8.9- 21.1)	
Non-Hispanic	239	2,320,577	10.3 (9.0- 11.7)	10.7 (9.4- 12.2)	

Source: Utah Death Certificate Database. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

ICD-10 codes: V02-04 [.1-.9], V09.2, V12-14 [.3-.9], V19 [.4-.6], V20-V28 [.3-.9], V29-79 [.4-.9], V80 [.3-.5], V81-82 [.1], V83-86 [.0-.3], V87 [.0-.8], V89.2

Injury and Violence

Poisoning Deaths

Why Is It Important?

Since 2002, poisoning deaths have been the leading cause of injury death in Utah, surpassing motor vehicle crashes. For Utahns ages 15-64, poisoning is the overall leading cause of death.[93] Poison deaths include deaths caused by drugs (prescription, street, or alcohol), toxins, chemical substances, or gas (e.g., carbon monoxide).

How Are We Doing?

- Utah's age-adjusted death rate from poisoning was 15.3 per 100,000 population from 2005 to 2007.
- This rate is significantly higher than the U.S. poisoning death rate.[93]

Poisoning Deaths, 2005-2007

	(Age-adjusted) Deaths per 100,000 Population
All Utahns	15.3
American Indian/Alaska Native	16.9
Asian	6.3
Black or African American	12.5
Native Hawaiian/Pacific Islander	*
White	16.2
Hispanic or Latino	9.4
Not Hispanic or Latino	16.0

- Utah had a 97.4% increase in poisoning death rates from 2001 to 2007.[93]
- Asian and Hispanic/Latino Utahns had significantly lower rates of poisoning death than all Utahns.
- More than 89% of all Utah poisoning deaths result from taking medication or other drugs.[93]
- 82% of prescription-related poisoning deaths involved opioids (Utah Violent Death Reporting System, 2005-2007).
- Fewer than 20% of Utah poisoning deaths are suicides and fewer than 20% are unintentional. In most cases, the intent of the poisoning is unknown.[93]
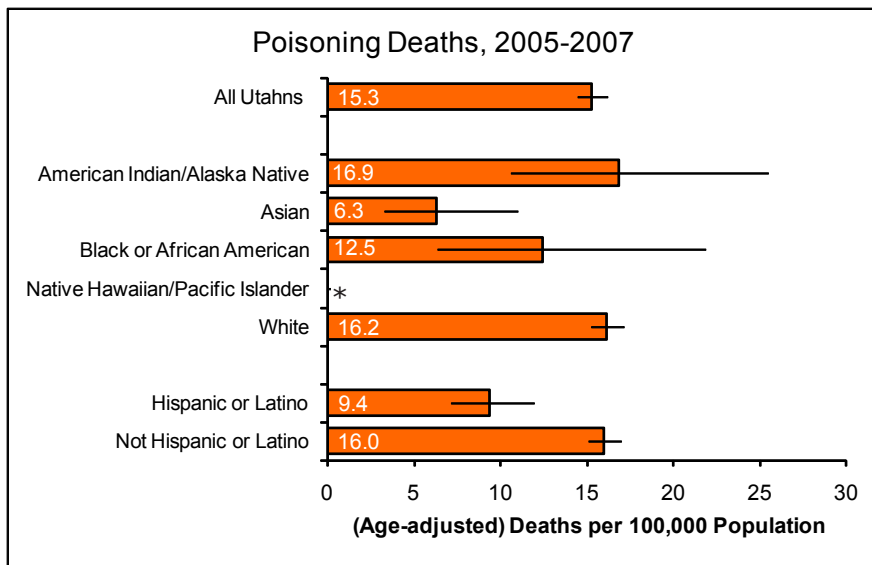
How Can We Improve?

From 2007-2009, legislative funding was given to the Utah Department of Health to educate the public and providers about the dangers of prescription opioids, conduct research, and establish guidelines. A media campaign with the slogan "Use Only As Directed" was developed including the website, www.useonlyasdirected.org, with information about treatment, community resources, facts and guidelines about prescription drugs and drug use in Utah. The campaign messages focus on: 1.) when taking medication, never take a prescription medicine not prescribed to you, 2.) don't take more than prescribed, 3.) do not also drink alcohol or take other medications not approved by your doctor, 4.) avoid using narcotic medications to facilitate sleep, and (5.) lock up prescription painkillers and properly dispose of outdated medicine.[97] During a poisoning emergency, or for prevention information, Utahns should call the Utah Poison Control Center at 1-800-222-1222.

Poisoning Deaths, 2005-2007

Race/Ethnicity	Avg Annual # of Deaths	Total Average Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utahns	411	2,628,429	15.6 (14.8- 16.5)	15.3 (14.5- 16.2)	n/a
American Indian/Alaska Native	8	46,817	17.1 (10.9- 25.4)	16.9 (10.6- 25.5)	
Asian	4	65,585	6.6 (3.5- 11.3)	6.3 (3.3- 11.0)	↓
Black or African American	5	40,537	12.3 (6.9- 20.3)	12.5 (6.4- 21.9)	
Native Hawaiian/Pacific Islander	*	27,371	* (* - *)	* (* - *)	
White	406	2,448,118	16.6 (15.7- 17.6)	16.2 (15.3- 17.2)	
Hispanic or Latino	26	293,288	8.9 (7.0- 11.1)	9.4 (7.2- 12.0)	↓
Non-Hispanic	384	2,335,141	16.4 (15.5- 17.4)	16.0 (15.1- 17.0)	

Source: The Utah Violent Death Reporting System (UTVDRS). Population Estimates: UDOH Center for Health Data, Indicator-Based Information System for Public Health website: http://ibis.health.utah.gov/". Estimates are for average of 2005-2007 years and for race alone or in combination with other races.

*Due to a low frequency, these rates are unstable and have been suppressed.

**Age-adjusted to the U.S. 2000 standard population

*** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Violence and Injury Prevention Program, (801) 538-6864, http://health.utah.gov/vipp/
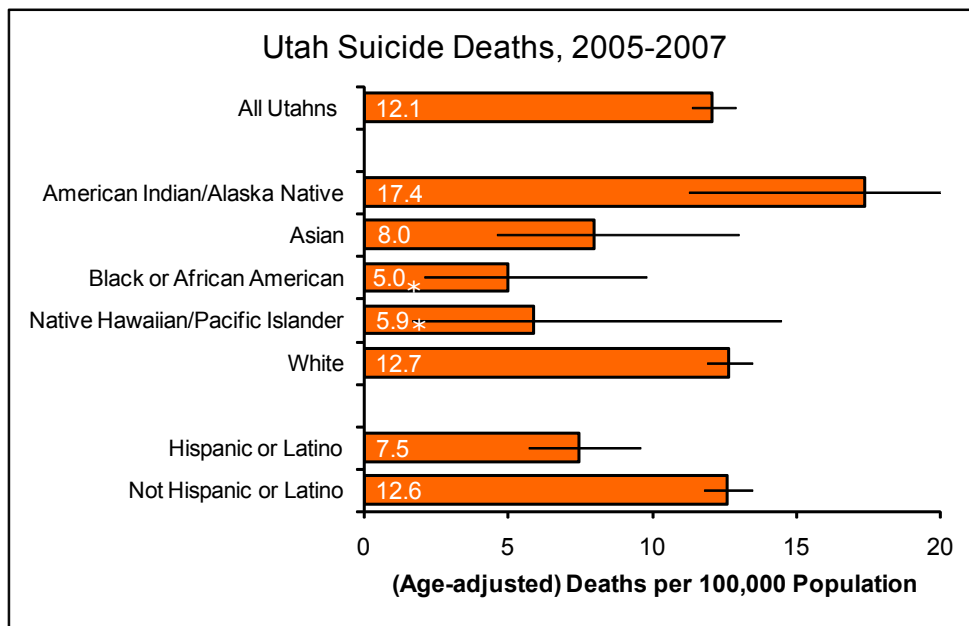
Suicide

Why Is It Important?
Suicide is the leading cause of death for Utahns ages 35 to 44 and the 2nd leading cause of death for Utahns ages 15 to 34. Completed suicides are only the tip of the iceberg; more people are hospitalized or treated in an emergency department for suicide attempts than are fatally injured.[98]

How Are We Doing?
- Utah's age-adjusted death rate from suicide was 12.1 per 100,000 population from 2005 to 2007.
- Utah has one of the highest suicide rates in the U.S.[98]
- Black/African American and Hispanic/Latino Utahns had significantly lower rates of suicide than all Utahns. (See page 78 for depression information.)

Utah Suicide Deaths, 2005-2007

	Rate
All Utahns	12.1
American Indian/Alaska Native	17.4
Asian	8.0
Black or African American	5.0 *
Native Hawaiian/Pacific Islander	5.9 *
White	12.7
Hispanic or Latino	7.5
Not Hispanic or Latino	12.6

(Age-adjusted) Deaths per 100,000 Population

How Can We Improve?
The National Suicide Prevention Lifeline at 1-800-SUICIDE (784-2433) or 1-800-273-TALK (273-8255) is available to help people with suicidal thoughts and their friends and loved ones. In 2007, the Department of Human Services, Division of Substance Abuse and Mental Health collaborated with many private and government agencies, including UDOH, to create the Utah Suicide Prevention Plan, including such activities as teaching the public about prevention, improving clinical services, reducing stigma associated with seeking help, and providing culturally appropriate services for minority groups.[130] The UDOH, Violence and Injury Prevention Program implemented The Utah Violent Death Reporting System (UTVDR in 2005, with funding from the Centers for Disease Control and Prevention, to help generate public health data at the national, state, and local levels that is detailed, useful, and timely. UTVDRS is a type of data collection and monitoring system that can help experts better understand the public health problem of violence by collecting uniform, statewide, incident-based information regarding suicides and other violent deaths.
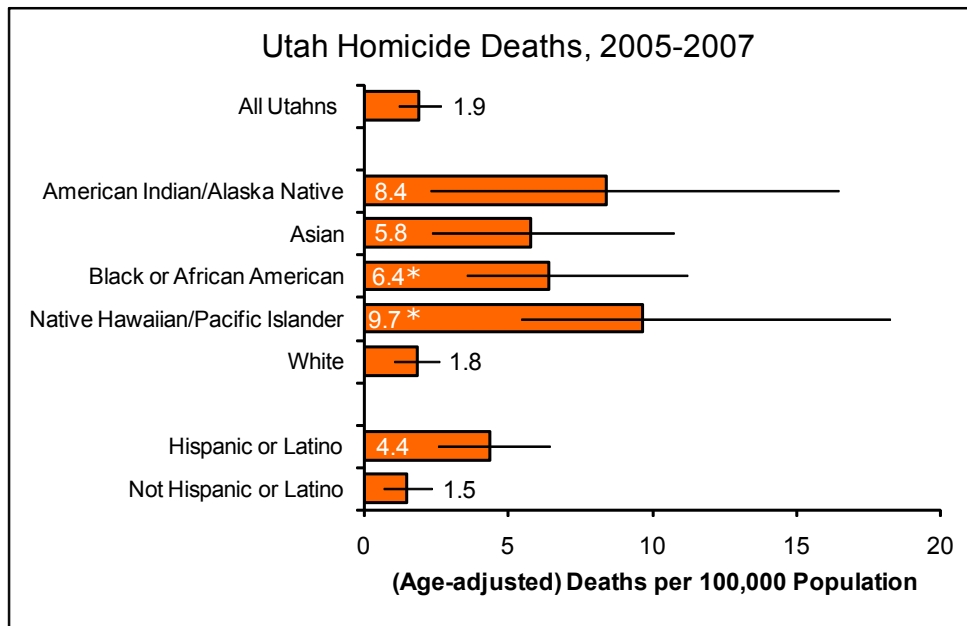
Utah Suicide Deaths, 2005-2007

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utahns	358	2,628,429	13.6 (12.8- 14.4)	12.1 (11.4- 12.9)	n/a
American Indian/Alaska Native	9	46,817	19.2 (12.7- 28.0)	17.4 (11.3- 25.5)	
Asian	8	65,585	11.7 (7.4- 17.5)	8.0 (4.6 - 13.0)	
Black or African American	3*	40,537	6.6* (2.8- 13.0)	5.0* (2.1 - 9.8)	↓
Native Hawaiian/Pacific Islander	2*	27,371	6.1* (2.0- 14.2)	5.9* (1.7 - 14.5)	
White	348	2,448,118	14.2 (13.4- 15.1)	12.7 (11.9- 13.5)	
Hispanic or Latino	23	293,288	8.0 (6.2- 10.1)	7.5 (5.7 - 9.6)	↓
Non-Hispanic	334	2,335,141	14.3 (13.4- 15.2)	12.6 (11.8- 13.5)	

Source: The Utah Violent Death Reporting System (UTVDRS). Population Estimates: UDOH Center for Health Data, Indicator-Based Information System for Public Health website: http://ibis.health.utah.gov/". Estimates are for average of 2005-2007 years and for race alone or in combination with other races.

* Interpret with caution. Insufficient number of cases to meet UDOH standard for data reliability.

**Age-adjusted to the U.S. 2000 standard population

*** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Homicide

Why Is It Important?

Death by homicide takes an enormous toll on the mental and physical well being of family members, friends, neighbors, and coworkers of the victim. The trauma, grief, and bereavement experienced by these individuals have long-lasting impacts that affect many aspects of their lives.[99]

How Are We Doing?

- Utah's age-adjusted homicide rate was 1.9 per 100,000 population from 2005 to 2007.
- Utah's homicide rate is lower than the U.S. homicide rate.[99]
- American Indian/Alaska Native, Asian, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latino Utahns had higher homicide rates than the statewide rate.
- From 2005 to 2007, there were 56 domestic violence-related homicides. This accounts for 33.7% of the total homicides in Utah during the same time period.
- Males were homicide victims more frequently than females. Of all age groups, infants under age one were the most likely to be victims of homicide.[99]

Utah Homicide Deaths, 2005-2007

	All Utahns	1.9
American Indian/Alaska Native	8.4
Asian	5.8
Black or African American	6.4*
Native Hawaiian/Pacific Islander	9.7 *
White	1.8
Hispanic or Latino	4.4
Not Hispanic or Latino	1.5

(Age-adjusted) Deaths per 100,000 Population

How Can We Improve?

Because firearms are used in the majority of homicides, gun safety is a crucial first step. When firearms are stored in homes, they should be in a locked location inaccessible to children. Absent a safe location, guns and ammunition should be stored separately. Treatment programs for substance abusers and counseling for child abusers and domestic violence perpetrators could also help to reduce the homicide rate. The UDOH, Violence and Injury Prevention Program implemented The Utah Violent Death Reporting System (UTV-DRS) in 2005. UTVDRS is a type of data collection and monitoring system that can help experts better understand the public health problem of violence. In addition, domestic violence homicides and child abuse homicides are reviewed by a multi-disciplinary committee who makes recommendations on the prevention of family violence homicides.

Utah Homicide Deaths, 2005-2007

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utahns	55	2,628,429	2.1 (1.8- 2.5)	1.9 (1.6 - 2.2)	n/a
American Indian/Alaska Native	5	46,817	10.0 (5.4- 16.7)	8.4 (4.4 - 14.6)	↑
Asian	4	65,585	6.6 (3.5- 11.3)	5.8 (3.0 - 10.0)	↑
Black or African American	3*	40,537	7.4* (3.4- 14.0)	6.4* (2.8 - 13.4)	↑
Native Hawaiian/Pacific Islander	3*	27,371	11.0* (5.0- 20.8)	9.7* (4.2 - 19.0)	↑
White	50	2,448,118	2.0 (1.7- 2.4)	1.8 (1.5 - 2.2)	
Hispanic or Latino	17	293,288	5.8 (4.3- 7.6)	4.4 (3.2 - 5.8)	↑
Non-Hispanic	38	2,335,141	1.6 (1.3- 2.0)	1.5 (1.2 - 1.8)	

Source: The Utah Violent Death Reporting System (UTVDRS). Population Estimates: UDOH Center for Health Data, Indicator-Based Information System for Public Health website: http://ibis.health.utah.gov/". Estimates are for average of 2005-2007 years and for race alone or in combination with other races.

* Interpret with caution. Insufficient number of cases to meet UDOH standard for data reliability.

**Age-adjusted to the U.S. 2000 standard population

*** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Violence and Injury Prevention Program, (801) 538-6864, http://health.utah.gov/vipp/
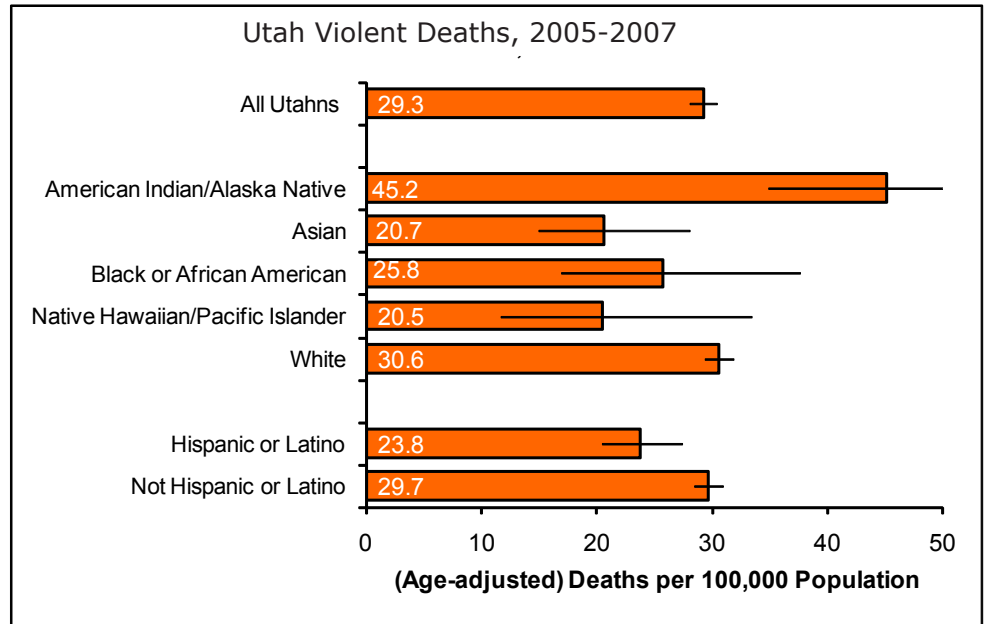
Injury and Violence

Violent Deaths

Why Is It Important?
Two people die violently every day in Utah. Homicides, suicides, deaths of undetermined intent, firearm-related deaths, deaths due to legal intervention (a subtype of homicide) and deaths due to terrorism are all considered violent deaths.

How Are We Doing?
- Utah's age-adjusted death rate from violence was 29.3 per 100,000 population from 2005 to 2007.
- American Indian/ Alaska Native and White Utahns had significantly higher rates of violent death than all Utahns.
- Asian and Hispanic/Latino Utahns had significantly lower rates of violent death than all Utahns.

Utah Violent Deaths, 2005-2007

All Utahns: 29.3
American Indian/Alaska Native: 45.2
Asian: 20.7
Black or African American: 25.8
Native Hawaiian/Pacific Islander: 20.5
White: 30.6
Hispanic or Latino: 23.8
Not Hispanic or Latino: 29.7

(Age-adjusted) Deaths per 100,000 Population

How Can We Improve?
Free, confidential hotlines include the Domestic Violence Information Line at 1-800-897-LINK (5465), the Rape Recovery Center at 801-467-7273 and the National Suicide Prevention Lifeline at 1-800-273-TALK (8255) or 1-800-SUICIDE (784-2433). The UDOH Violence and Injury Prevention Program implemented The Utah Violent Death Reporting System (UTVDRS) in 2005, with funding from the Centers for Disease Control and Prevention, to help generate public health data at the national, state, and local levels that is detailed, useful, and timely. UTVDRS is a type of data collection and monitoring system that can help us better understand the public health problem of violence. This system collects uniform, statewide, incident-based information regarding violent deaths. Data are collected from death certificates, medical examiner records and police records. Data include circumstances of the event, weapon information, victim and suspect demographics, and the relationship between victims and suspects. In addition, domestic violence homicides and child abuse homicides are reviewed by a multi-disciplinary committee who makes recommendations on the prevention of family violence. homicides.

Utah Violent Deaths, 2005-2007

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	825	2,628,429	31.4 (30.2- 32.6)	29.3 (28.1- 30.5)	n/a
American Indian/Alaska Native	23	46,817	49.8 (38.9- 63.0)	45.2 (34.9- 57.6)	↑
Asian	16	65,585	24.9 (18.4- 32.9)	20.7 (14.9- 28.1)	↓
Black or African American	11	40,537	27.1 (18.7- 38.1)	25.8 (16.9- 37.6)	
Native Hawaiian/Pacific Islander	6	27,371	21.9 (13.0- 34.6)	20.5 (11.7- 33.4)	
White	805	2,448,118	32.9 (31.6- 34.2)	30.6 (29.4- 31.9)	↑
Hispanic or Latino	74	293,288	25.1 (21.9- 28.7)	23.8 (20.5- 27.4)	↓
Non-Hispanic	749	2,335,141	32.1 (30.7- 33.4)	29.7 (28.5- 31.0)	

Source: The Utah Violent Death Reporting System (UTVDRS). Population Estimates: UDOH Center for Health Data, Indicator-Based Information System for Public Health website: http://ibis.health.utah.gov/". Estimates are for average of 2005-2007 years and for race alone or in combination with other races.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
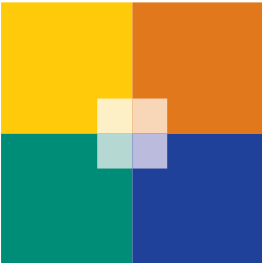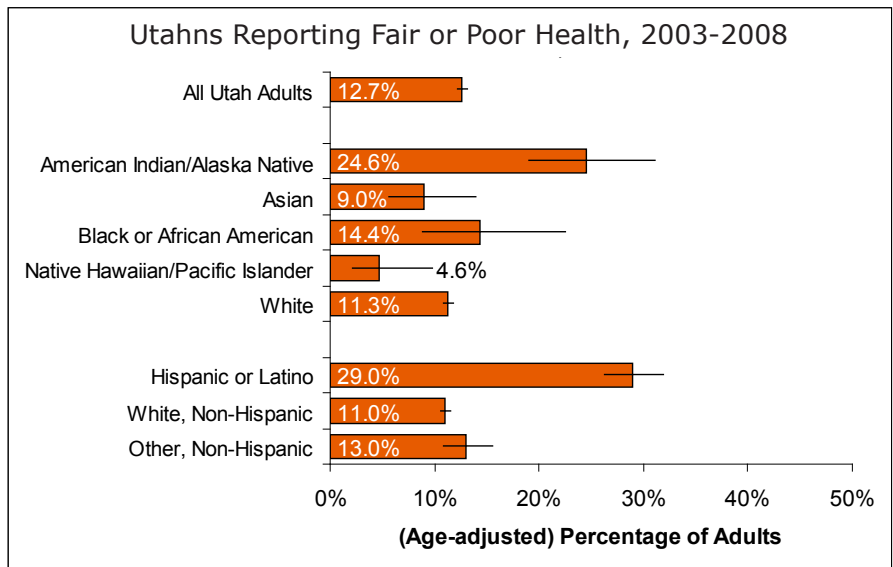
CHRONIC DISEASES AND CONDITIONS

Fair or Poor Health

Why Is It Important?
Self-rated health is an independent predictor of important health outcomes including mortality, morbidity, and functional status. It is considered to be a reliable indicator of a person's perceived health and is a good global assessment of a person's well being.[100]

How Are We Doing?
- From 2003-2008, 12.7% of Utah adults reported fair or poor general health status (age-adjusted rate).
- American Indian/Alaska Native and Hispanic/Latino Utahns had significantly higher rates of self-reported fair or poor health than all Utahns.
- Native Hawaiian/Pacific Islander and White, non-Hispanic Utahns had significantly lower rates of self-reported fair or poor health than all Utahns.

Utahns Reporting Fair or Poor Health, 2003-2008

Race/Ethnicity	Percentage
All Utah Adults	12.7%
American Indian/Alaska Native	24.6%
Asian	9.0%
Black or African American	14.4%
Native Hawaiian/Pacific Islander	4.6%
White	11.3%
Hispanic or Latino	29.0%
White, Non-Hispanic	11.0%
Other, Non-Hispanic	13.0%

(Age-adjusted) Percentage of Adults

How Can We Improve?
An analysis of Utah fair/poor health data found that controlling for age, income, education, smoking, and obesity decreases the disparity between American Indian/Alaska Native and Hispanic/Latino Utahns and other Utahns, but does not eliminate it, implying that efforts to improve lifestyle choices combined with efforts to combat poverty and improve educational opportunity could greatly reduce disparities in self-reported fair or poor health. However, addressing these problems alone would not be enough to fully eliminate the health disparity.[101] The UDOH, Center for Multicultural Health (CMH) sponsors qualitative studies and community forums to assess other factors contributing to racial and ethnic health disparities and conducts projects to address these factors. A CMH study suggested that lack of health insurance coverage, cultural barriers, and racism in health care settings also contribute to health disparities in Utah. Multicultural study participants suggested ways to better address health disparities including teaching skills, being concise, using native languages, and involving community members and community-based organizations in health program planning and implementation.[13]

Percentage of Utah Adults (Age 18 and Over) Who Reported Fair or Poor Health, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	Number in Fair/Poor Health	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,889	1,781,429	210,947	11.8% (11.4%- 12.3%)	12.7% (12.2%- 13.1%)	n/a
American Indian/Alaska Native	341	23,796	5,512	23.2% (17.3%- 30.3%)	24.6% (19.0%- 31.1%)	↑
Asian	280	40,656	3,081	7.6% (4.3%- 13.0%)	9.0% (5.6% - 14.0%)	
Black or African American	131	19,213	2,658	13.8% (8.3%- 22.1%)	14.4% (8.8% - 22.5%)	
Native Hawaiian/Pacific Islander	111	12,877	605	4.7% (2.1%- 10.2%)	4.6% (2.1% - 9.8%)	↓
White	27,507	1,684,887	179,378	10.6% (10.2%- 11.1%)	11.3% (10.9%- 11.8%)	↓
Hispanic or Latino	1,944	176,650	44,270	25.1% (22.4%- 27.9%)	29.0% (26.2%- 31.9%)	↑
White, Non-Hispanic	26,747	1,517,124	157,947	10.4% (10.0%- 10.9%)	11.0% (10.6%- 11.5%)	↓
Other, Non-Hispanic	1,041	87,655	10,434	11.9% (9.6%- 14.6%)	13.0% (10.8%- 15.6%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Center for Multicultural Health, 1-888-222-2542, http://www.health.utah.gov/cmh

Poor Physical Health Status

Why Is It Important?

General physical health status is the culmination of all the things that affect a person's health. A person may have had poor health because of an injury, an acute infection such as a cold or flu, or a chronic health problem. Physical health on the BRFSS survey is measured by the question, "Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"

Recent Poor Physical Health, Utah, 2003-2008

All Utah Adults	14.3%
American Indian/Alaska Native	20.7%
Asian	10.3%
Black or African American	8.1%
Native Hawaiian/Pacific Islander	8.6%
White	14.2%
Hispanic or Latino	17.2%
White, Non-Hispanic	14.1%
Other, Non-Hispanic	13.8%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- From 2003–2008, 14.3% of Utah adults reported seven or more days in the past 30 days when their physical health was not good (age-adjusted rate).
- American Indian/Alaska Native and Hispanic/Latino Utahns had significantly higher rates of self-reported poor physical health than all Utahns.
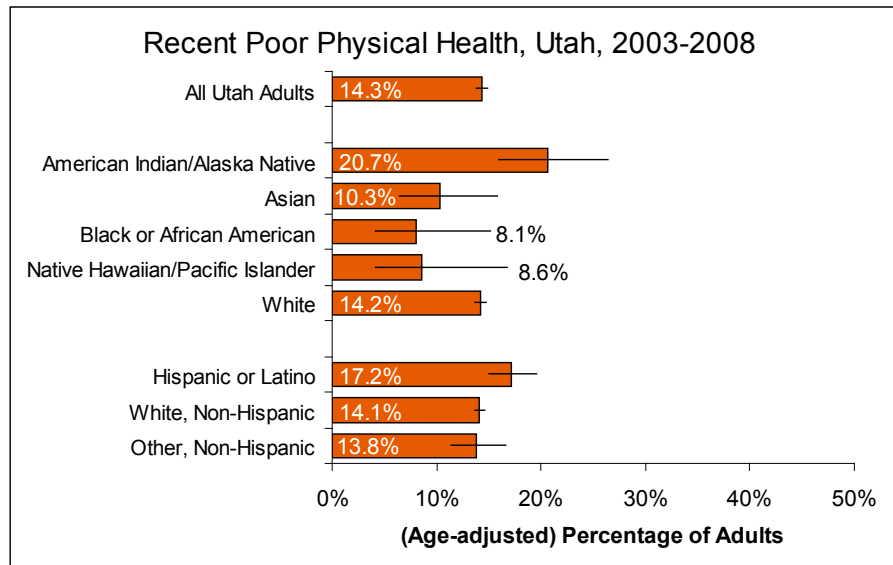
How Can We Improve?

Physical health is determined by a combination of genetic and biological processes, individual behaviors and lifestyle, and the environments in which people live. Achieving an absence of poor health days is only a step toward the goal of complete well being; according to the World Health Organization, "Health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity."[102] Regular physical activity is critically important for the health and well being of people of all ages, whether they participate in vigorous exercise or moderate physical activity. Even among frail and very old adults, mobility and functioning can be improved through physical activity. Contact UDOH, Check Your Health for health tips at 1-888-222-2542 and www.checkyourhealth.org. The UDOH, Center for Multicultural Health maintains the Multilingual Library, with health information in over 30 languages, at www.health.utah.gov/cmh/multilinguallibrary.htm.

Percentage of Utah Adults (Age 18 and Over) Who Reported Seven or More Days of Poor Physical Health in the Past Month, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	# With Poor Phys Hlth	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,437	1,781,429	244,675	13.7% (13.2%- 14.3%)	14.3% (13.8% - 14.8%)	n/a
American Indian/Alaska Native	327	23,796	4,583	19.3% (14.4%- 25.3%)	20.7% (15.9% - 26.4%)	↑
Asian	270	40,656	4,350	10.7% (6.1%- 18.0%)	10.3% (6.5% - 15.9%)	
Black or African American	131	19,213	1,681	8.7% (4.2%- 17.2%)	8.1% (4.1% - 15.2%)	
Native Hawaiian/Pacific Islander	109	12,877	1,259	9.8% (4.7%- 19.1%)	8.6% (4.2% - 16.8%)	
White	27,127	1,684,887	231,824	13.8% (13.2%- 14.3%)	14.2% (13.7% - 14.7%)	
Hispanic or Latino	1,900	176,650	24,186	13.7% (11.9%- 15.8%)	17.2% (15.1% - 19.5%)	↑
White, Non-Hispanic	26,376	1,517,124	208,201	13.7% (13.2%- 14.3%)	14.1% (13.6% - 14.7%)	
Other, Non-Hispanic	1,007	87,655	12,260	14.0% (11.3%- 17.2%)	13.8% (11.5% - 16.6%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

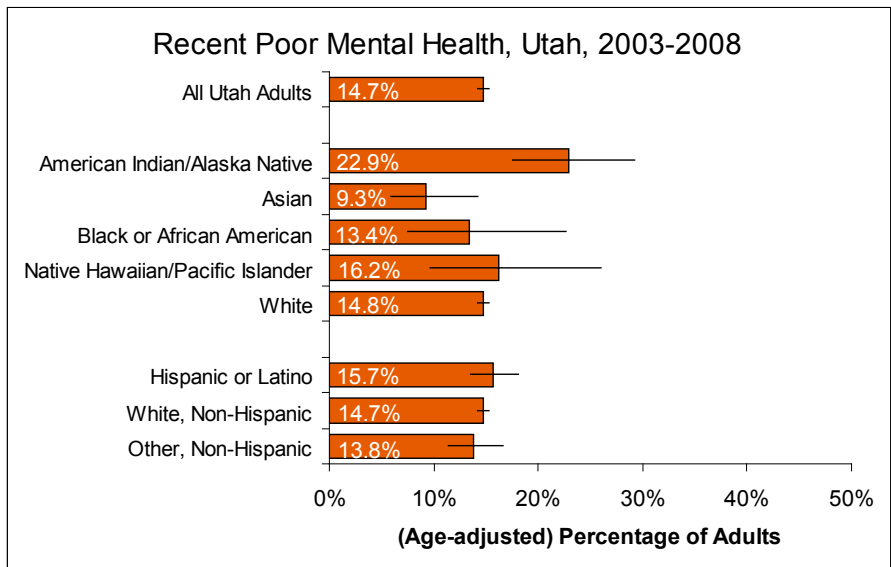*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Poor Mental Health Status

Why Is It Important?

Mental health is how we think, feel, and act as we cope with life. It also helps determine how we handle stress, relate to others, and make choices. Mental illnesses are common and include diseases such as depression, phobias, bipolar disorder, and schizophrenia.[103] Mental health on the BRFSS survey is measured by the question, "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"

Recent Poor Mental Health, Utah, 2003-2008

Category	Percentage
All Utah Adults	14.7%
American Indian/Alaska Native	22.9%
Asian	9.3%
Black or African American	13.4%
Native Hawaiian/Pacific Islander	16.2%
White	14.8%
Hispanic or Latino	15.7%
White, Non-Hispanic	14.7%
Other, Non-Hispanic	13.8%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- From 2003–2008, 14.7% of Utah adults reported seven or more days in the past 30 days when their mental health was not good (age-adjusted rate).
- American Indian/Alaska Native Utahns had a significantly higher rate of self-reported poor mental health than all Utahns.
- Asian Utahns had a significantly lower rate of self-reported poor mental health than all Utahns.

How Can We Improve?

In 2001, the U.S. Surgeon General reported that compared with whites, minorities have less access to mental health services, are less likely to receive needed mental health services, often receive a poorer quality of mental health care, and are underrepresented in mental health research. Cultural differences must be accounted for to ensure that minorities receive mental health care tailored to their needs.[104] Medicines and therapy can improve the lives of most people with mental illnesses.[103] The Utah Department of Human Services, Division of Substance Abuse and Mental Health contracts with Community Mental Health Centers (CMHC) to provide mental health treatment services to seriously and persistently mentally ill adults and seriously emotionally disturbed children. Private mental health care providers and self-help groups can serve individuals who are experiencing mental health problems but are not eligible for CMHC services.

Percentage of Utah Adults (Age 18 and Over) Who Reported Seven or More Days of Poor Mental Health in the Past Month, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	# With Poor Ment Health	Crude Rate (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utah Adults	29,509	1,781,429	267,564	15.0% (14.4%- 15.6%)	14.7% (14.2% - 15.2%)	n/a
American Indian/Alaska Native	333	23,796	5,352	22.5% (16.8%- 29.4%)	22.9% (17.5% - 29.3%)	↑
Asian	273	40,656	3,739	9.2% (5.4%- 15.2%)	9.3% (5.9% - 14.3%)	↓
Black or African American	130	19,213	3,171	16.5% (8.4%- 29.8%)	13.4% (7.5% - 22.7%)	
Native Hawaiian/Pacific Islander	112	12,877	2,126	16.5% (9.9%- 26.1%)	16.2% (9.6% - 26.0%)	
White	27,191	1,684,887	253,230	15.0% (14.4%- 15.6%)	14.8% (14.2% - 15.3%)	
Hispanic or Latino	1,899	176,650	26,518	15.0% (12.9%- 17.4%)	15.7% (13.6% - 18.1%)	
White, Non-Hispanic	26,444	1,517,124	227,244	15.0% (14.4%- 15.6%)	14.7% (14.2% - 15.3%)	
Other, Non-Hispanic	1,014	87,655	12,952	14.8% (11.9%- 18.2%)	13.8% (11.4% - 16.6%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

**Age-adjusted to the U.S. 2000 standard population

*** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
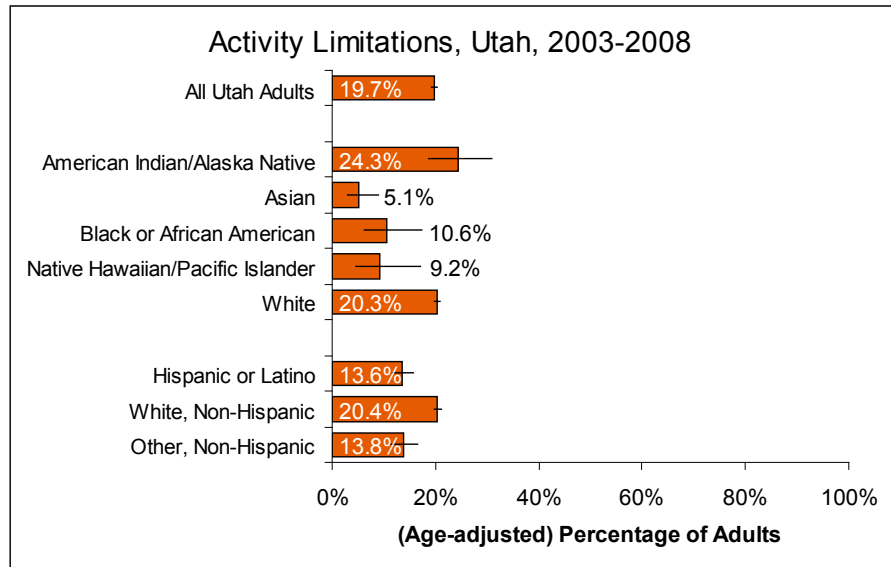
Chronic Diseases and Conditions
Activity Limitation

Why Is It Important?

People whose activities are limited due to physical, mental, or emotional problems generally have higher medical costs and are more likely to miss school or work.[105]

How Are We Doing?

- From 2003–2008, 19.7% of Utah adults reported that their activities were limited due to physical, mental, or emotional problems (age-adjusted rate).
- White, non-Hispanic Utahns had significantly higher rates of activity limitation than all Utahns.
- Asian, Black/African American, Native Hawaiian/Pacific Islander and Hispanic/Latino Utahns had significantly lower rates of activity limitation than all Utahns.

Activity Limitations, Utah, 2003-2008

	Percentage
All Utah Adults	19.7%
American Indian/Alaska Native	24.3%
Asian	5.1%
Black or African American	10.6%
Native Hawaiian/Pacific Islander	9.2%
White	20.3%
Hispanic or Latino	13.6%
White, Non-Hispanic	20.4%
Other, Non-Hispanic	13.8%

(Age-adjusted) Percentage of Adults

How Can We Improve?

Healthy, safe lifestyles help prevent many of the illnesses and injuries that lead to activity limitation. Good chronic disease management can prevent activity limitation in people who are sick. The UDOH, Bureau of Health Promotion supports prevention and disease management for chronic diseases and injuries. The UDOH, Bureau of Health Facility Licensing, Certification and Resident Assessment monitors long-term care facilities for health, treatment, and safety. The Utah Department of Human Services (UDHS), Division of Services for People with Disabilities helps people with intellectual disabilities, cerebral palsy, autism, epilepsy, brain injuries, or loss of limbs to lead self-determined lives. The UDHS, Division of Aging & Adult Services provides people age 60 or older with health promotion, nutrition services such as Meals on Wheels, and services to help seniors with activity limitation continue living in their homes. The UDHS, Division of Substance Abuse and Mental Health ensures that prevention and treatment services for substance abuse and mental health are available statewide. The Utah State Office of Rehabilitation helps people who are visually impaired or hard of hearing to obtain employment and achieve independence.

Percentage of Utah Adults (Age 18 and Over) Who Reported Their Activities Were Limited Due to Physical, Mental, or Emotional Problems, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	Number Limited	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,733	1,781,429	328,009	18.4% (17.8%- 19.0%)	19.7% (19.1% - 20.2%)	n/a
American Indian/Alaska Native	340	23,796	4,697	19.7% (14.8%- 25.8%)	24.3% (18.8% - 30.8%)	
Asian	276	40,656	2,112	5.2% (2.9%- 9.1%)	5.1% (2.9% - 8.8%)	↓
Black or African American	131	19,213	1,745	9.1% (5.2%- 15.3%)	10.6% (6.2% - 17.4%)	↓
Native Hawaiian/Pacific Islander	111	12,877	1,239	9.6% (5.1%- 17.6%)	9.2% (4.7% - 17.1%)	↓
White	27,363	1,684,887	326,352	19.4% (18.8%- 20.0%)	20.3% (19.7% - 20.9%)	↑
Hispanic or Latino	1,934	176,650	18,191	10.3% (8.7%- 12.1%)	13.6% (11.7% - 15.7%)	↓
White, Non-Hispanic	26,606	1,517,124	296,638	19.6% (18.9%- 20.2%)	20.4% (19.8% - 21.0%)	↑
Other, Non-Hispanic	1,035	87,655	10,403	11.9% (9.7%- 14.5%)	13.8% (11.5% - 16.6%)	↓

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Center for Multicultural Health, 1-888-222-2542, http://www.health.utah.gov/cmh

Major Depression

Depression is the third leading cause of disease worldwide and the leading disease in developed countries.[106] Major depression increases risk of alcohol, tobacco and drug-related problems; poor physical health; and suicide. Up to 15% of all people with major depressive disorder die by suicide.[107] The Utah BRFSS includes a validated instrument to diagnose depression: the Patient Health Questionnaire (PHQ-9).

Major Depression, Utah 2005-2007

All Utah Adults	4.2%
American Indian/Alaska Native	5.9%
Asian	4.1%
Black or African American	0.8%
Native Hawaiian/Pacific Islander	2.1%
White	4.4%
Hispanic or Latino	6.0%
White, Non-Hispanic	4.2%
Other, Non-Hispanic	3.1%

(Age-adjusted) Percentage of Adults

How Are We Doing?

- From 2005–2007, the BRFSS PHQ-9 diagnosed 4.2% of Utah adults with major depression (age-adjusted rate).
- This rate is similar to the U.S. rate of major depression.[108]
- Hispanic/Latino Utahns had a significantly higher rate of major depression than all Utahns.
- Black/African American and Native Hawaiian/Pacific Islander Utahns had significantly lower rates of major depression than all Utahns.
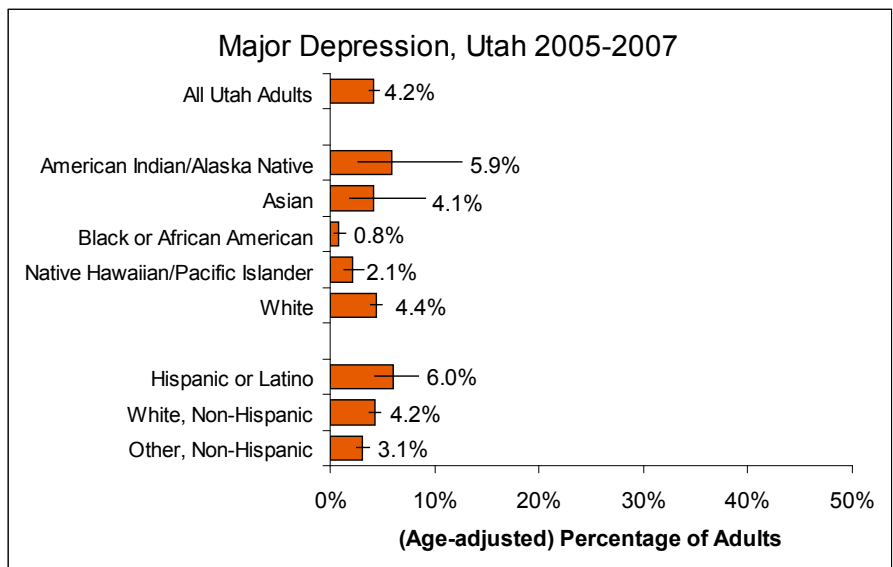
How Can We Improve?

There's no sure way to prevent depression, which is a physical condition of the brain often tied to genetics.[109,129] However, controlling stress, increasing resilience, boosting low self-esteem and establishing social support may help. In addition, treatment at the earliest sign of a problem can help prevent depression from worsening.[129] Even in severe cases, depression is highly treatable. The most common treatments are counseling and medication. Most insurance plans cover depression treatment.[109] The National Suicide Prevention Lifeline at 1-800-SUICIDE (784-2433) or 1-800-273-TALK (273-8255) is available to help people with suicidal thoughts and their friends and loved ones. The Utah Department of Human Services, Division of Substance Abuse and Mental Health contracts with Community Mental Health Centers (CMHC) to provide mental health treatment services to seriously and persistently mentally ill adults and seriously emotionally disturbed children. Private mental health care providers and self-help groups can serve individuals who are experiencing mental health problems but are not eligible for CMHC services.

Percentage of Utah Adults (Age 18 and Over) Who Were Diagnosed With Major Depression, 2005-2007

Race/Ethnicity	Sample Size	Total Adult Population	# With Major Depression	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	13,022	1,781,429	75,354	4.2% (3.7% - 4.8%)	4.2% (3.8% - 4.7%)	n/a
American Indian/Alaska Native	1,008	23,796	1,304	5.5% (3.9% - 7.7%)	5.9% (2.7% - 12.7%)	
Asian	934	40,656	1,630	4.0% (2.7% - 5.9%)	4.1% (1.8% - 9.1%)	
Black or African American	597	19,213	500	2.6% (1.4% - 4.9%)	0.8% (0.4% - 1.5%)	↓
Native Hawaiian/Pacific Islander	837	12,877	534	4.2% (2.7% - 6.3%)	2.1% (1.4% - 3.2%)	↓
White	8,628	1,684,887	75,314	4.5% (3.8% - 5.2%)	4.4% (3.9% - 5.0%)	
Hispanic or Latino	852	176,650	14,432	8.2% (5.5% - 12.1%)	6.0% (4.2% - 8.4%)	↑
White, Non-Hispanic	8,314	1,517,124	63,568	4.2% (3.6% - 4.8%)	4.2% (3.7% - 4.8%)	
Other, Non-Hispanic	4,481	87,655	2,682	3.1% (2.5% - 3.8%)	3.1% (2.5% - 3.8%)	↓

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

Note: Major depression was diagnosed using the PHQ-9 module in the BRFSS.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
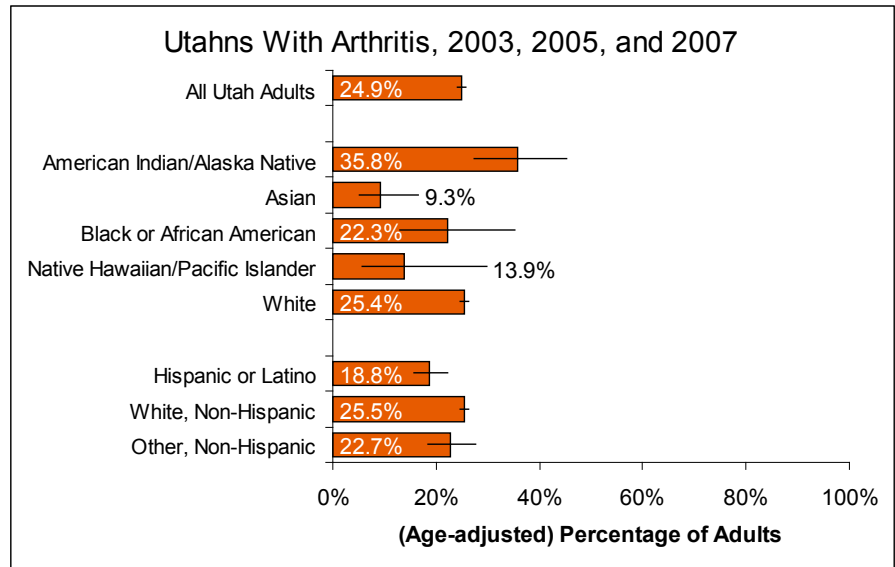
Chronic Diseases and Conditions

Arthritis Prevalence

Why Is It Important?

Arthritis is the leading cause of disability in the U.S. and is associated with activity limitation, work disability, and reduced quality of life.[110] Arthritis is a group of more than 100 chronic degenerative rheumatic diseases and other conditions that cause pain, stiffness, and swelling of joints due to inflammation of joints, the tissues that surround the joints and other connective tissues.

How Are We Doing?

- In 2003, 2005, and 2007, the age-adjusted percentage of Utah adults who reported their doctor or other health care professional had told them they had arthritis was 24.9 percent.
- American Indian/Alaska Native Utahns had a significantly higher rate of arthritis than all Utahns.
- Asian and Hispanic/Latino Utahns had significantly lower rates of arthritis than all Utahns.
- Arthritis prevalence increases with age. In all age categories, women have higher rates of arthritis than men.[110]

Utahns With Arthritis, 2003, 2005, and 2007

Group	(Age-adjusted) Percentage of Adults
All Utah Adults	24.9%
American Indian/Alaska Native	35.8%
Asian	9.3%
Black or African American	22.3%
Native Hawaiian/Pacific Islander	13.9%
White	25.4%
Hispanic or Latino	18.8%
White, Non-Hispanic	25.5%
Other, Non-Hispanic	22.7%

How Can We Improve?

People with arthritis can manage their symptoms through regular physical activity, maintaining a healthy weight, and using larger and stronger joints for heavy lifting.[111] The UDOH, Utah Arthritis Program provides information to help individuals with arthritis manage their disease and find resources.

Percentage of Utah Adults (Age 18 and Over) Who Reported Being Diagnosed With Arthritis, 2003, 2005, and 2007

Race/Ethnicity	Sample Size	Total Adult Population	# With Arthritis	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,128	1,781,429	396,462	22.3% (21.4% - 23.1%)	24.9% (21.4% - 25.7%)	n/a
American Indian/Alaska Native	153	23,796	6,561	27.6% (19.2%- 37.8%)	35.8% (27.5% - 45.1%)	↑
Asian	128	40,656	2,539	6.2% (3.2%- 11.9%)	9.3% (5.0% - 16.6%)	↓
Black or African American	68	19,213	3,786	19.7% (9.8%- 35.7%)	22.3% (13.1% - 35.2%)	
Native Hawaiian/Pacific Islander	52	12,877	1,451	11.3% (4.8%- 24.2%)	13.9% (5.8% - 29.9%)	
White	13,037	1,684,887	395,343	23.5% (22.6%- 24.4%)	25.4% (24.6% - 26.3%)	
Hispanic or Latino	903	176,650	19,444	11.0% (8.9%- 13.5%)	18.8% (15.7% - 22.2%)	↓
White, Non-Hispanic	12,682	1,517,124	359,373	23.7% (22.8%- 24.6%)	25.5% (24.6% - 26.3%)	
Other, Non-Hispanic	483	87,655	14,918	17.0% (13.3%- 21.6%)	22.7% (18.5% - 27.6%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
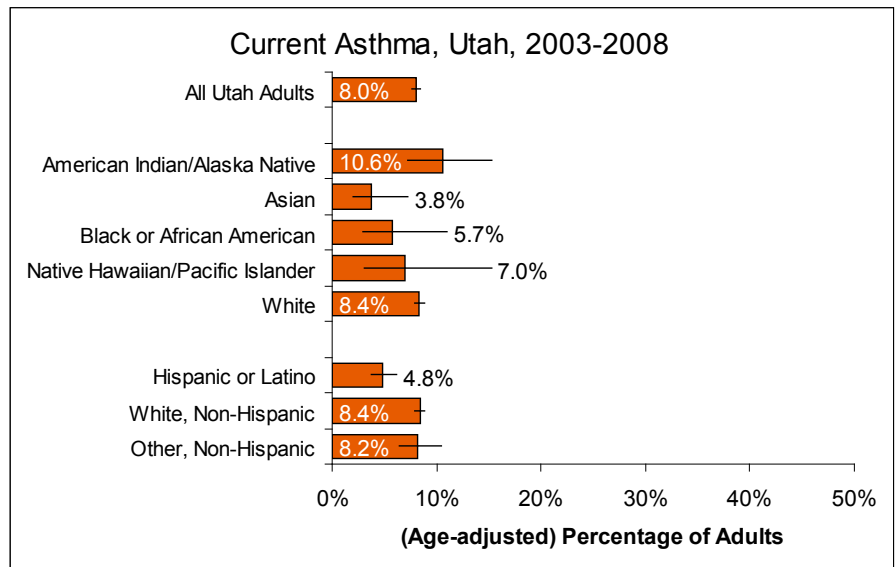
Contact: UDOH Utah Arthritis Program, 801-538-9458, http://health.utah.gov/arthritis/

Asthma Prevalence

Why Is It Important?
Asthma is a serious personal and public health issue that has far-reaching medical, economic, and psychosocial implications. Asthma-related medical events include emergency department visits, hospitalizations, and deaths.[112]

How Are We Doing?
- From 2003-2008, 8% of Utah adults reported that they currently had asthma (age-adjusted rate).
- Asian and Hispanic/Latino Utahns had significantly lower age-adjusted rates of current asthma than all Utahns.
- From 2003-2008, 12.8% of Utah adults reported that they had ever been diagnosed with asthma during their lifetime (age-adjusted rate). (Behavioral Risk Factor Surveillance System, 2003-2008)
- American Indian/Alaska Native Utahns had a significantly higher age-adjusted rate of lifetime asthma (17.1%) than all Utahns and Hispanic/Latino Utahns had a significantly lower age-adjusted rate of lifetime asthma (9.0%) than all Utahns. (Behavioral Risk Factor Surveillance System, 2003-2008)

Current Asthma, Utah, 2003-2008

Group	Percentage
All Utah Adults	8.0%
American Indian/Alaska Native	10.6%
Asian	3.8%
Black or African American	5.7%
Native Hawaiian/Pacific Islander	7.0%
White	8.4%
Hispanic or Latino	4.8%
White, Non-Hispanic	8.4%
Other, Non-Hispanic	8.2%

(Age-adjusted) Percentage of Adults

How Can We Improve?
Persons with asthma should partner with their doctors to develop and maintain an asthma action plan. This plan helps them to properly take medicines, identify asthma triggers, and manage the disease if asthma symptoms worsen. People with asthma should avoid triggers like secondhand smoke, dust mites, mold, cockroaches and other pests, household pets, and combustion byproducts in air.[124] The UDOH, Asthma Program provides tools and resources to assist people with asthma management, encourages appropriate health care for people with asthma, identifies asthma risk factors, and promotes strategies to reduce those risks in Utah. The Utah Department of Environmental Quality keeps trak of local air quality across the state through its daily Air Quality Index, which measures levels of five major air pollutants.

Percentage of Utah Adults (Age 18 and Over) Who Reported They Have Current Asthma, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	Number with Asthma	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,795	1,781,429	143,623	8.1% (7.6%- 8.5%)	8.0% (7.6%- 8.4%)	n/a
American Indian/Alaska Native	344	23,796	2,167	9.1% (6.1%- 13.4%)	10.6% (7.2%- 15.2%)	
Asian	278	40,656	1,409	3.5% (1.8%- 6.7%)	3.8% (1.9%- 7.3%)	↓
Black or African American	130	19,213	929	4.8% (2.3%- 9.7%)	5.7% (2.9%- 11.0%)	
Native Hawaiian/Pacific Islander	112	12,877	1,090	8.5% (3.2%- 20.8%)	7.0% (3.0%- 15.3%)	
White	27,409	1,684,887	141,775	8.4% (8.0%- 8.9%)	8.4% (7.9%- 8.8%)	
Hispanic or Latino	1,950	176,650	7,727	4.4% (3.4%- 5.6%)	4.8% (3.8%- 6.1%)	↓
White, Non-Hispanic	26,649	1,517,124	128,409	8.5% (8.0%- 8.9%)	8.4% (8.0%- 8.9%)	
Other, Non-Hispanic	1,037	87,655	6,822	7.8% (5.9%- 10.2%)	8.2% (6.4%- 10.5%)	

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
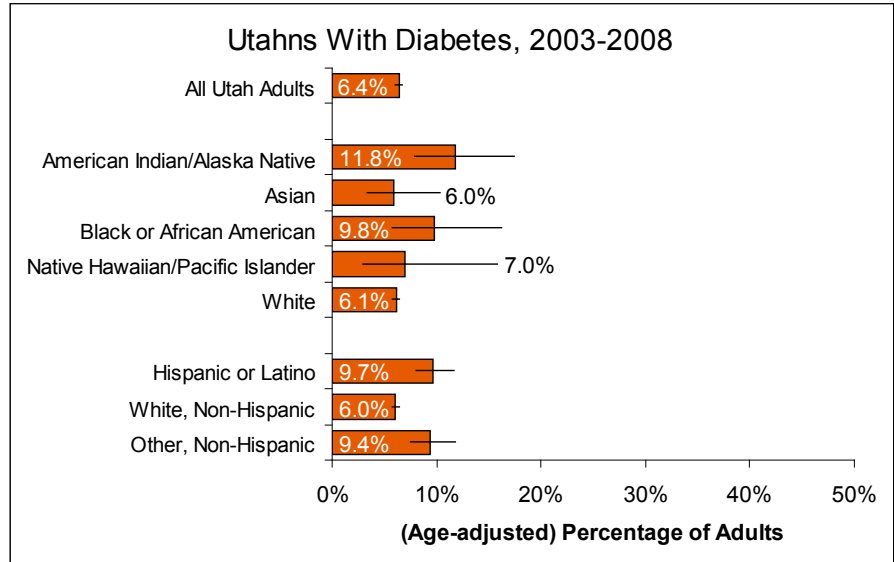
Contact: UDOH Utah Asthma Program, 801-538-6259, http://health.utah.gov/asthma/

Chronic Diseases and Conditions

Diabetes Prevalence

Why Is It Important?
Diabetes is the leading cause of Non-traumatic lower-extremity amputation and renal failure. It is also the leading cause of blindness among adults younger than age 75. It is one of the leading causes of heart disease. Diabetes places enormous burden on the health care system.[113]

How Are We Doing?
- From 2003-2008, 6.4% of Utah adults reported that they had been diagnosed with diabetes by a doctor (age-adjusted rate).
- The Utah diabetes rate for adults is lower than the U.S. rate.[113]
- American Indian/Alaskan Native and Hispanic/Latino Utahns have significantly higher rates of adults with diabetes than the Utah population overall.
- The prevalence of diabetes has risen steadily in both Utah and the U.S. over the past decade. This increase has been augmented by factors like the increasing prevalence of obesity, improved medical care extending longevity of people with diabetes, and improved screening to detect diabetes.[113]

Utahns With Diabetes, 2003-2008

	Value
All Utah Adults	6.4%
American Indian/Alaska Native	11.8%
Asian	6.0%
Black or African American	9.8%
Native Hawaiian/Pacific Islander	7.0%
White	6.1%
Hispanic or Latino	9.7%
White, Non-Hispanic	6.0%
Other, Non-Hispanic	9.4%

(Age-adjusted) Percentage of Adults

How Can We Improve?
The risk for developing diabetes can be reduced by maintaining a healthy weight through physical activity and healthy eating.[114] The UDOH, Diabetes Prevention and Control Program (DPCP) works to increase public awareness of the warning signs, symptoms, and risk factors for developing diabetes and encourages screening. The DPCP produces media campaigns focusing on diabetes management. The DPCP has developed a manual for health care providers to assist in treatment decisions for their patients. The DPCP also has manuals for self-care in a number of languages and it works closely with community health centers and community-based organizations to provide support and culturally appropriate education for providers and lay people who work with minority racial and ethnic populations. More efforts need to be made to link Non-English-speaking, uninsured and low-income people with diabetes with available resources.

Percentage of Utah Adults (Age 18 and Over) Who Reported Being Diagnosed With Diabetes, 2003-2008

Race/Ethnicity	Sample Size	Total Adult Population	# With Diabetes	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	29,955	1,781,429	100,251	5.6% (5.3%- 5.9%)	6.4% (6.1% - 6.7%)	n/a
American Indian/Alaska Native	344	23,796	2,189	9.2% (5.9%- 14.0%)	11.8% (7.9% - 17.4%)	↑
Asian	281	40,656	1,366	3.4% (1.9%- 6.0%)	6.0% (3.4% - 10.3%)	
Black or African American	132	19,213	1,480	7.7% (4.2%- 13.6%)	9.8% (5.7% - 16.2%)	
Native Hawaiian/Pacific Islander	112	12,877	606	4.7% (1.6%- 12.7%)	7.0% (2.9% - 15.8%)	
White	27,557	1,684,887	93,790	5.6% (5.3%- 5.9%)	6.1% (5.8% - 6.4%)	
Hispanic or Latino	1,952	176,650	9,737	5.5% (4.4%- 6.9%)	9.7% (8.0% - 11.7%)	↑
White, Non-Hispanic	26,795	1,517,124	84,457	5.6% (5.3%- 5.9%)	6.0% (5.7% - 6.4%)	
Other, Non-Hispanic	1,049	87,655	5,914	6.7% (5.2%- 8.7%)	9.4% (7.4% - 11.8%)	↑

Source: Behavioral Risk Factor Surveillance System. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for average of 2005 and 2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Diabetes Prevention and Control Program, 801-538-6141, http://health.utah.gov/diabetes

Diabetes Deaths

Why Is It Important?
More than 1,000 Utahns with diabetes die every year. A number of studies have shown that improvements in care to control blood pressure, blood glucose, and blood cholesterol levels can reduce the risk of diabetes complications, and diabetes deaths could be reduced by as much as 30 percent.[114]

How Are We Doing?
- From 2004–2008, the age-adjusted Utah diabetes death rate was 61.5 per 100,000 population.
- Native Hawaiian/Pacific Islander Utahns had a significantly higher rate of diabetes death than all Utahns.
- The highest death rate was seen for Native Hawaiians/Pacific Islanders, while Asians had the lowest death rates from diabetes.
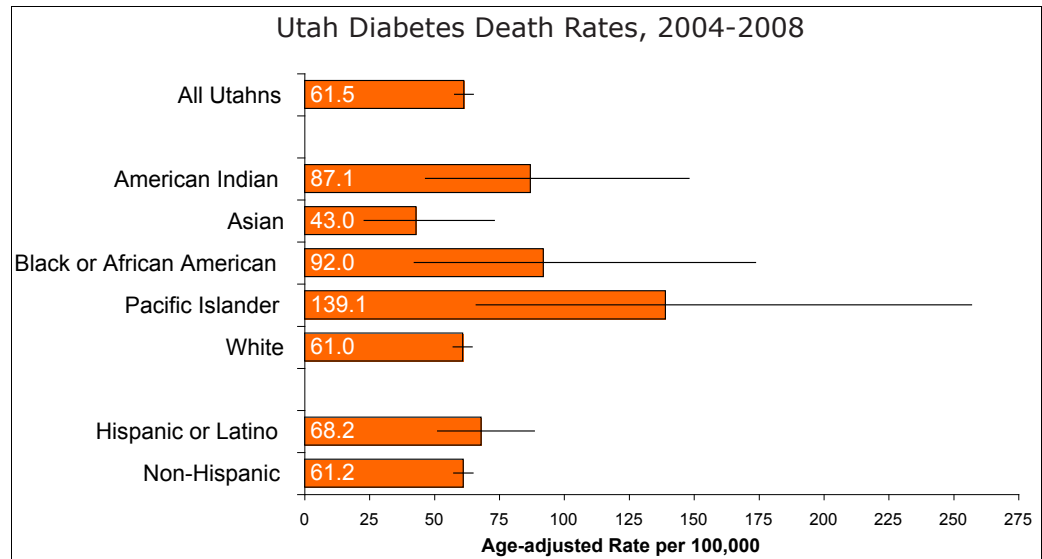
How Can We Improve?
Diabetes death rates could be reduced with aggressive management techniques, including regular routine checkups, regular screening for complications, consistent self-monitoring of blood sugar, regular physical activity, maintaining a healthy weight, and abstaining from tobacco use. Access to care, medications and supplies are critical for proper diabetes management, yet tremendous disparities exist. Members of disadvantaged populations (e.g., low income, uninsured, racial or ethnic minority) are often not diagnosed with diabetes until irreversible complications have already developed. The National Diabetes Education Program provides educational materials appropriate for people from a variety of populations.

Utah Diabetes Death Rates, 2004-2008

Race/Ethnicity	Rate
All Utahns	61.5
American Indian	87.1
Asian	43.0
Black or African American	92.0
Pacific Islander	139.1
White	61.0
Hispanic or Latino	68.2
Non-Hispanic	61.2

Age-adjusted Rate per 100,000

Utah Diabetes Deaths, 2004-2008

Race/Ethnicity	Average Annual Deaths	Total Population	Crude Rate/100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	1,139	2,615,129	43.5 (41.0- 46.1)	61.5 (57.9 - 65.2)	n/a
American Indian/Alaska Native	15	37,002	40.5 (22.7- 66.9)	87.1 (46.7 - 148.2)	
Asian	14	56,736	24.3 (13.2- 41.0)	43.0 (23.1 - 73.2)	
Black or African American	11	33,663	33.3 (16.7- 59.2)	92.0 (42.4 - 173.8)	
Native Hawaiian/Pacific Islander	11	21,538	52.9 (26.8- 93.8)	139.1 (66.3 - 257.0)	↑
White	1,087	2,466,190	44.1 (41.5- 46.8)	61.0 (57.4 - 64.7)	
Hispanic or Latino	61	294,552	20.8 (16.0- 26.8)	68.2 (51.4 - 88.7)	
Non-Hispanic	1,077	2,320,577	46.4 (43.7- 49.3)	61.2 (57.6 - 65.0)	

Source: Utah Death Certificate Database. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

ICD10 Codes: E10-E14 as underlying or contributing causes

Heart Disease Deaths

Why Is It Important?
Heart disease is the leading cause of death in Utah.[29] Heart disease is a general term that includes coronary heart disease, rheumatic heart disease, hypertension, heart failure, and other heart conditions. The most common form of heart disease is coronary heart disease.[115]

How Are We Doing?
- From 2004–2008, the age-adjusted Utah heart disease death rate was 157.5 per 100,000 population.
- The Utah heart disease death rate is lower than the U.S. rate.[115]
- In both Utah and the U.S., death rates from heart disease have been falling over the past 10 years.[115]
- American Indian/Alaska Native, Asian, and Hispanic/Latino Utahns had a significantly lower rate of heart disease death than all Utahns.
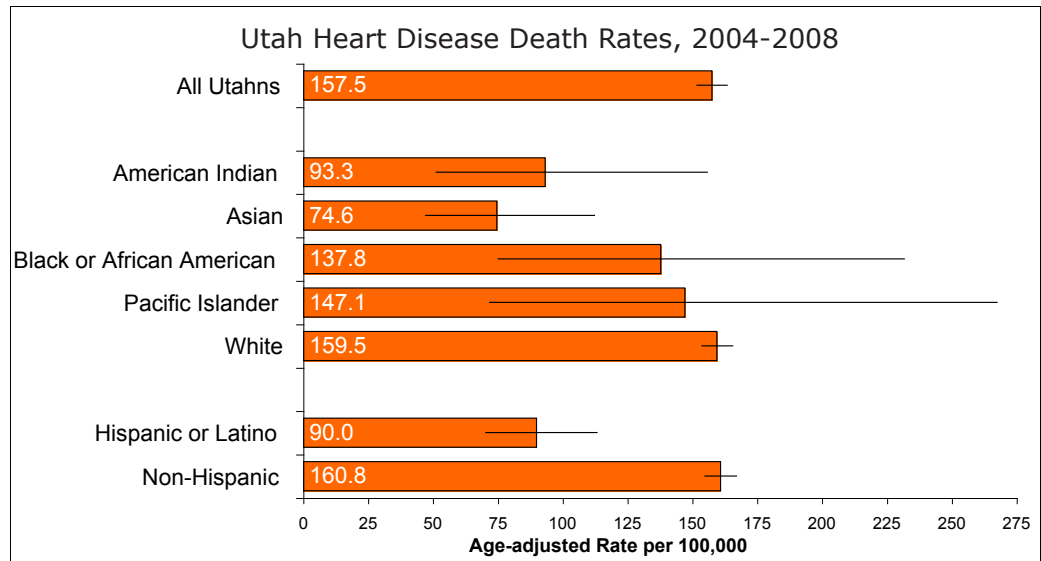
How Can We Improve?
Quitting smoking, maintaining a healthy weight, regular physical activity, and regular screening for high blood pressure and cholesterol can help prevent heart disease. Preventing or controlling high blood pressure, high blood cholesterol, and diabetes can help lower the risk of developing heart disease. Deaths from heart disease may be prevented by seeking medical help immediately in the event of a heart attack. Individuals should know the warning signs of a heart attack and call for emergency medical transport so that prompt medical treatment (on the way to the hospital) may be given.[55] The UDOH, Heart Disease and Stroke Prevention Program (HDSPP) works with health care providers, insurance companies, and employers to improve cholesterol, blood pressure, and heart disease screening and control. The HDSPP sponsors public awareness campaigns about topics like healthy lifestyles and the signs and symptoms of a heart attack.

Utah Heart Disease Deaths, 2004-2008

Race/Ethnicity	Average Annual Deaths	Total Population	Crude Rate/100,000 *(95% CI Range)*	Age-adjusted Rate* *(95% CI Range)*	Sig.**
All Utahns	2,880	2,615,129	110.1 (*106.2- 114.2*)	157.5 (*151.8- 163.4*)	n/a
American Indian/Alaska Native	16	37,002	43.8 (*25.1- 70.9*)	93.3 (*51.3- 155.8*)	↓
Asian	24	56,736	41.9 (*26.8- 62.5*)	74.6 (*47.2- 112.2*)	↓
Black or African American	17	33,663	49.9 (*29.0- 80.1*)	137.8 (*75.1- 231.7*)	
Native Hawaiian/Pacific Islander	12	21,538	56.6 (*29.5- 98.5*)	147.1 (*71.8- 267.4*)	
White	2,811	2,466,190	114.0 (*109.8- 118.3*)	159.5 (*153.6- 165.5*)	
Hispanic or Latino	81	294,552	27.6 (*21.9- 34.3*)	90.0 (*70.4- 113.2*)	↓
Non-Hispanic	2,799	2,320,577	120.6 (*116.2- 125.2*)	160.8 (*154.9- 166.9*)	

Source: Utah Death Certificate Database. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

ICD10 Codes: I00-I09, I11, I13, I20-I51

Contact: UDOH Heart Disease and Stroke Prevention Program, 801-538-6142, http://www.hearthighway.org/

Coronary Heart Disease Deaths

Why Is It Important?
Coronary heart disease, or coronary artery disease, is a condition in which coronary arteries become narrowed or clogged, blood flow to the heart is reduced, and an inadequate amount of blood oxygen reaches the heart. The part of the heart not receiving oxygen begins to die. Prevention of coronary heart disease is key to reducing mortality from heart disease.[116]

Utah Coronary Heart Disease Death Rates, 2004-2008

Race/Ethnicity	Rate
All Utahns	84.1
American Indian	57.9
Asian	39.3
Black or African American	70.8
Pacific Islander	81.1
White	85.1
Hispanic or Latino	53.2
Non-Hispanic	85.6

Age-adjusted Rate per 100,000

How Are We Doing?
- From 2004–2008, the age-adjusted Utah coronary heart disease death rate was 84.1 per 100,000 population.
- The Utah coronary heart disease death rate is lower than the U.S. rate.[116]
- In both Utah and the U.S., death rates from coronary heart disease have been falling over the past 25 years.[116]
- Asian and Hispanic/Latino Utahns had a significantly lower rate of coronary heart disease death than all Utahns.
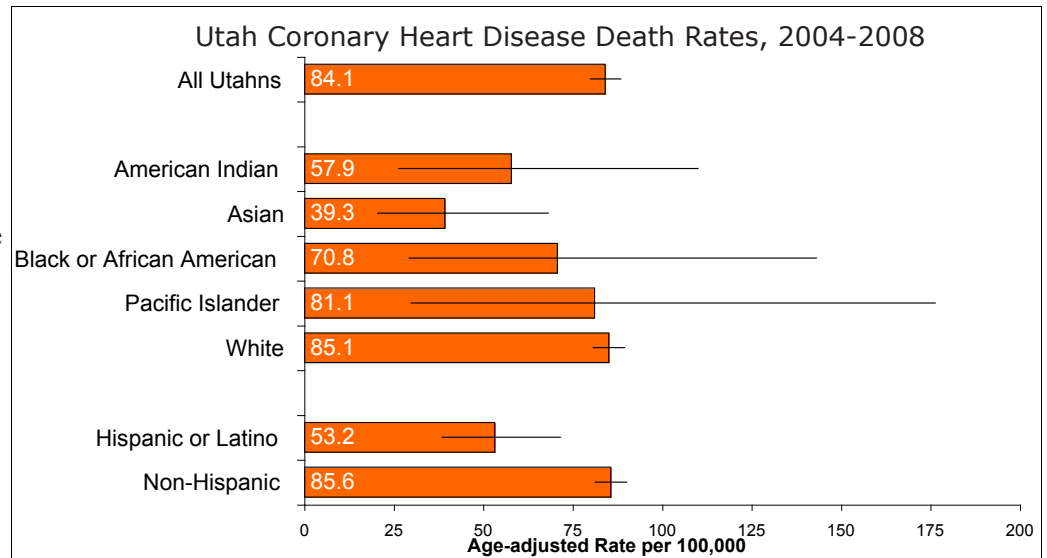
How Can We Improve?
Quitting smoking, maintaining a healthy weight, regular physical activity, and regular screening for high blood pressure and cholesterol can help prevent coronary heart disease. Preventing or controlling high blood pressure, high blood cholesterol, and diabetes can help lower the risk of developing heart disease. Deaths from coronary heart disease may be prevented by seeking medical help immediately in the event of a heart attack. Individuals should know the warning signs of a heart attack and call for emergency medical transport so that prompt medical treatment (on the way to the hospital) may be given.[55] The UDOH, Heart Disease and Stroke Prevention Program (HDSPP) works with health care providers, insurance companies and employers to improve cholesterol, blood pressure, and heart disease screening and control. The HDSPP sponsors public awareness campaigns about the signs and symptoms of a heart attack.
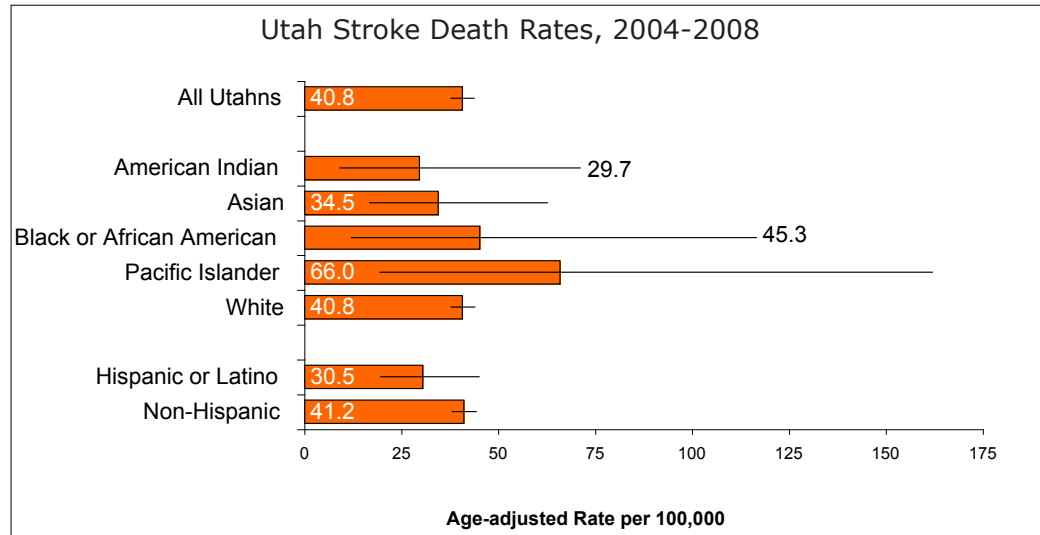
Utah Coronary Heart Disease Deaths, 2004-2008

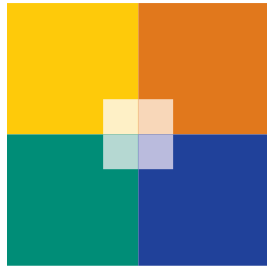| Race/Ethnicity	Average Annual Deaths	Total Population	Crude Rate/100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	1,548	2,615,129	59.2 (56.3- 62.2)	84.1 (79.9- 88.4)	n/a
American Indian/Alaska Native	10	37,002	27.0 (13.0- 49.7)	57.9 (26.4- 110.1)	
Asian	13	56,736	22.9 (12.2- 39.2)	39.3 (20.5- 68.2)	↓
Black or African American	9	33,663	26.7 (12.2- 50.8)	70.8 (29.3- 143.1)	
Native Hawaiian/Pacific Islander	7	21,538	33.4 (13.7- 68.2)	81.1 (29.9- 176.3)	
White	1,509	2,466,190	61.2 (58.1- 64.4)	85.1 (80.8- 89.5)	
Hispanic or Latino	49	294,552	16.5 (12.2- 21.8)	53.2 (38.5- 71.6)	↓
Non-Hispanic	1,500	2,320,577	64.6 (61.4- 68.0)	85.6 (81.3- 90.1)	

Source: Utah Death Certificate Database. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

*Age-adjusted to the U.S. 2000 standard population
** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
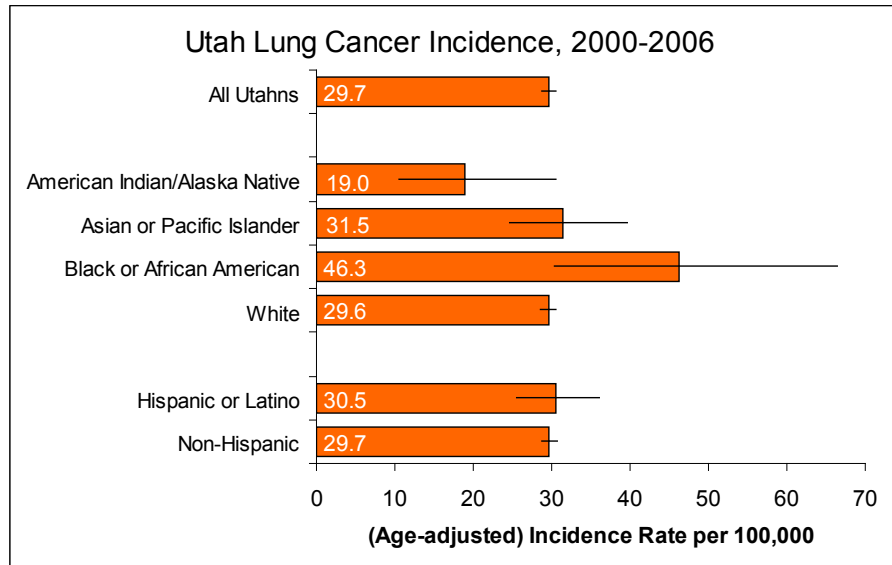
ICD10 Codes: I11, I20-I25

Chronic Diseases and Conditions

Stroke Deaths

Why Is It Important?

Stroke is the third leading cause of death in the United States and Utah. Among survivors, stroke can cause significant disability, including paralysis and speech and emotional problems.[29,52]

How Are We Doing?

- Utah's age-adjusted stroke death rate was 40.8 per 100,000 population from 2004 to 2008.
- There were no statistically significant differences in stroke death rates by race and ethnicity.

Utah Stroke Death Rates, 2004-2008

Race/Ethnicity	Age-adjusted Rate per 100,000
All Utahns	40.8
American Indian	29.7
Asian	34.5
Black or African American	45.3
Pacific Islander	66.0
White	40.8
Hispanic or Latino	30.5
Non-Hispanic	41.2

How Can We Improve?

Calling 911 immediately after recognizing signs of a stroke can save a life. Treatments may also help stop brain damage and disability if administered within three hours of the first sign of a stroke.[29] Reduce risk for stroke by not smoking, maintaining a healthy weight, getting physical activity and controlling high blood pressure and cholesterol.[117] The UDOH, Heart Disease and Stroke Prevention Program (HDSPP) is working to educate the public on the signs and symptoms of stroke, using TV, radio and print ads. In 2009, the HDSPP created a Spanish-language website about stroke, http://tucorazon.health.utah.gov. The HDSPP encourages Utah hospitals to participate in the American Heart Association 'Get with the Guidelines for Stroke' Program to enhance quality of care for stroke patients.

Utah Stroke Deaths, 2004-2008

Race/Ethnicity	Average Annual Deaths	Total Population	Crude Rate/100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	735	2,615,129	28.1 (26.1- 30.2)	40.8 (37.9 - 43.9)	n/a
American Indian/Alaska Native	5	37,002	14.6 (5.0- 33.0)	29.7 (9.2 - 71.2)	
Asian	11	56,736	19.0 (9.4- 34.2)	34.5 (16.9 - 62.7)	
Black or African American	4	33,663	12.5 (3.5- 31.3)	45.3 (12.2 - 116.6)	
Native Hawaiian/Pacific Islander	5	21,538	23.2 (7.5- 54.2)	66.0 (19.5 - 162.0)	
White	710	2,466,190	28.8 (26.7- 31.0)	40.8 (37.9 - 43.9)	
Hispanic or Latino	29	294,552	9.7 (6.5- 14.0)	30.5 (19.7 - 45.1)	
Non-Hispanic	707	2,320,577	30.4 (28.2- 32.8)	41.2 (38.2 - 44.3)	

Source: Utah Death Certificate Database. Population Estimates: UDOH Office of Public Health Assessment. Estimates are for 2006 year.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
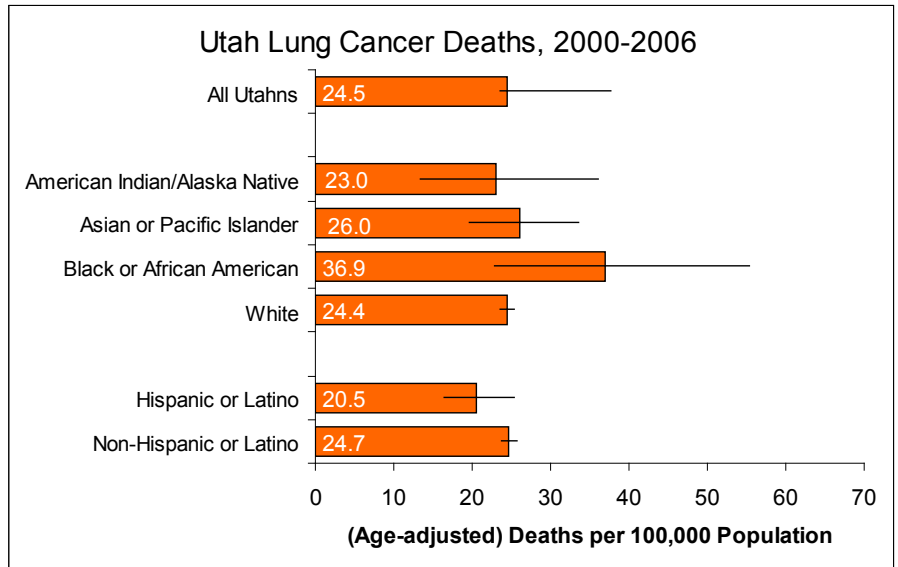
ICD10 Codes: I60-I69

Contact: UDOH Heart Disease and Stroke Prevention Program, 801-538-6142, http://www.hearthighway.org/

CANCER

Cancer

Lung Cancer Incidence

Why Is It Important?

Lung cancer is the leading cause of cancer-related death in Utah and the U.S.[118]

How Are We Doing?

- There were 29.7 new cases of lung cancer in Utah per 100,000 population from 2000 to 2006 (age-adjusted rate).
- This rate has changed little since 1980, when it was 28.6 per 100,000 population.[134]
- This rate is significantly lower than the U.S. lung cancer incidence rate.[134]
- Black/African American Utahns had a significantly higher rate of lung cancer than all Utahns.

Utah Lung Cancer Incidence, 2000-2006

Category	Rate
All Utahns	29.7
American Indian/Alaska Native	19.0
Asian or Pacific Islander	31.5
Black or African American	46.3
White	29.6
Hispanic or Latino	30.5
Non-Hispanic	29.7

(Age-adjusted) Incidence Rate per 100,000

How Can We Improve?

Cigarette smoking causes most lung cancer cases.[42] The UDOH, Tobacco Prevention and Control Program (TPCP) funds statewide and local tobacco-use cessation services, including the Utah Tobacco Quit Line (1-888-567-TRUTH), the Spanish Utah Tobacco Quit Line (1-877-629-1585), a web-based cessation service (www.utahquitnet.com), and school and community-based programs for teens and pregnant women. TPCP funds community-based organizations to tailor marketing materials and messages and provide outreach for racial and ethnic groups. A statewide media campaign in English and Spanish advertises these services and motivates smokers to quit. Quitting smoking reduces risk of lung cancer, but even after many years of not smoking, the risk to former smokers remains higher than in persons who have never smoked. Only smoking prevention can stop the epidemic of lung cancer.[42] The TPCP prevents youth tobacco use through media campaigns, school-based programs, and youth advocacy groups. Raising the price of tobacco products through increased taxation is also an effective method to prevent tobacco use.[119] Radon is the second most important cause of lung cancer after smoking. Testing is the only way to know if a home has elevated radon levels.[120] Utahns can learn more about radon and purchase reduced price testing kits at the Utah Department of Environmental Quality, Division of Radiation Control website: http://www.radon.utah.gov/.

Utah Lung Cancer Incidence, 2000-2006

Race/Ethnicity	Avg Annual # of Cases	Avg Total Population	Crude Rate per 100,000 *(95% CI Range)*	Age-adjusted Rate* *(95% CI Range)*	Sig.**
All Utahns	511	2,394,590	21.3 (20.6- 22.0)	29.7 (28.7 - 30.6)	n/a
American Indian/Alaska Native	2	34,511	7.0 (4.1- 11.3)	19.0 (10.6 - 30.6)	
Asian or Pacific Islander	11	67,815	15.6 (12.2- 19.6)	31.5 (24.6 - 39.6)	
Black or African American	4	29,485	14.1 (9.4- 20.2)	46.3 (30.4 - 66.5)	↑
White	493	2,262,779	21.8 (21.1- 22.5)	29.6 (28.6 - 30.6)	
Hispanic or Latino	21	242,943	8.8 (7.5- 10.4)	30.5 (25.5 - 36.0)	
Non-Hispanic	489	2,151,647	22.7 (22.0- 23.5)	29.7 (28.7 - 30.7)	

Source: Surveillance, Epidemiology, and End Results (SEER) Program. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population

** The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

Cancer

Lung Cancer Deaths

Why Is It Important?
Lung cancer is the leading cause of cancer-related death in Utah and the U.S.[118]

How Are We Doing?
- Utah's age-adjusted lung cancer death rate was 24.5 per 100,000 population from 2000 to 2006.
- This rate has changed little since 1980, when it was 24.4 per 100,000 population.[135]
- The lung cancer death rate in Utah is less than half the U.S. rate.[135]
- There were no statistically significant differences in lung cancer death rates by race and ethnicity.

Utah Lung Cancer Deaths, 2000-2006

	Rate
All Utahns	24.5
American Indian/Alaska Native	23.0
Asian or Pacific Islander	26.0
Black or African American	36.9
White	24.4
Hispanic or Latino	20.5
Non-Hispanic or Latino	24.7

(Age-adjusted) Deaths per 100,000 Population

How Can We Improve?
Smoking accounts for 87% of lung cancer deaths.[118] The UDOH, Tobacco Prevention and Control Program (TPCP) funds statewide and local tobacco-use cessation services, including the Utah Tobacco Quit Line (1-888-567-TRUTH), the Spanish Utah Tobacco Quit Line (1-877-629-1585), a web-based cessation service (www.utahquitnet.com), and school and community-based programs for teens and pregnant women. Radon represents a far smaller risk for this disease, but is the second leading cause of lung cancer in the United States, leading to 15,000-22,000 lung cancer deaths per year. Radon can enter homes through cracks in floors, walls, or foundations, and collect indoors. It can also be released from building materials or from water obtained from wells that contain radon. Because of their closeness to the ground, basements and first floors typically have the highest radon levels. Indoor radon levels are affected by the soil composition under and around the house and the ease with which radon enters the house. Testing is the only way to know if a home has elevated radon levels.[120] Utahns can learn more about radon and purchase reduced price testing kits at the Utah Department of Environmental Quality, Division of Radiation Control website: http://www.radon.utah.gov/.

Utah Lung Cancer Deaths, 2000-2006

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	417	2,394,590	17.4 (16.8- 18.1)	24.5 (23.6- 25.4)	n/a
American Indian/Alaska Native	3	34,511	7.5 (4.4- 11.8)	23.0 (13.4- 36.1)	
Asian or Pacific Islander	8	67,815	12.4 (9.5- 16.0)	26.0 (19.7- 33.6)	
Black or African American	3	29,485	11.1 (7.1- 16.7)	36.9 (22.8- 55.4)	
White	403	2,262,779	17.8 (17.2- 18.5)	24.4 (23.5- 25.4)	
Hispanic or Latino	14	242,943	5.6 (4.5- 6.8)	20.5 (16.4- 25.3)	
Non-Hispanic or Latino	404	2,151,647	18.8 (18.1- 19.5)	24.7 (23.8- 25.7)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population
**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
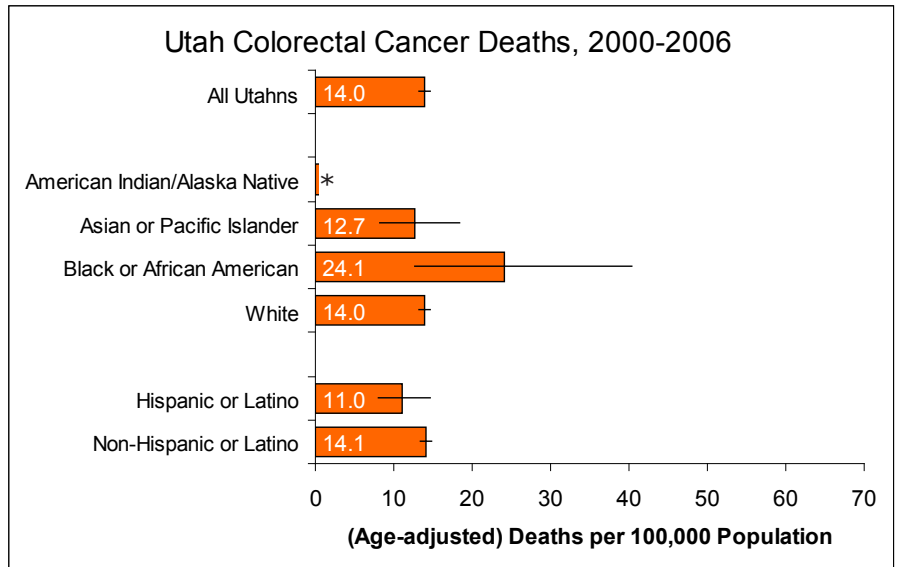
![Cancer logo] Cancer

Colorectal Cancer Incidence

Why Is It Important?
Colorectal cancer is the second leading cause of cancer-related death in Utah and the U.S.[19,20]

How Are We Doing?
- Between 2000 and 2006, there were 39.5 new cases of colorectal cancer in Utah per 100,000 population (age-adjusted rate).
- American Indian/Alaska Native and Asian/Pacific Islander Utahns had significantly lower age-adjusted rates of colorectal cancer.
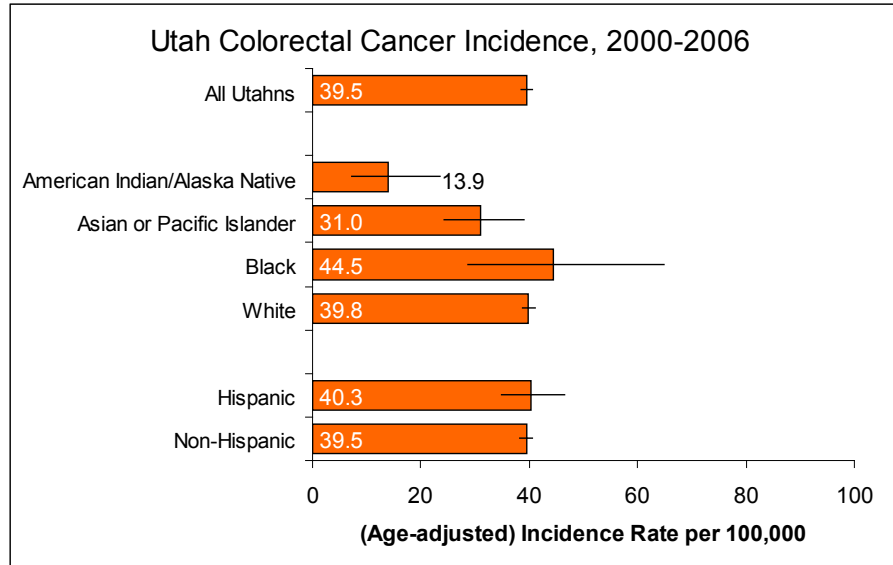
How Can We Improve?
Maintaining a healthy weight and eating a diet high in vegetables and fruits and low in processed or red meats reduces risk for colorectal cancer. Because it takes 10-15 years for abnormal cells to develop into cancer, regular screening can often prevent colorectal cancer altogether because these growths, or polyps, can be removed before becoming cancerous. Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk. Persons at high risk may need to begin screening at a younger age. In addition, finding and removing polyps or other areas of abnormal cell growth may be one of the most effective ways to prevent colorectal cancer development. Colorectal cancer is generally more treatable when it is found early, before it has had a chance to spread.[19] The Utah Cancer Action Network conducts English and Spanish language media campaigns to encourage Utahns over age 50 to seek colon cancer screening.

Utah Colorectal Cancer Incidence, 2000-2006

	All Utahns	39.5
American Indian/Alaska Native	13.9
Asian or Pacific Islander	31.0
Black	44.5
White	39.8
Hispanic	40.3
Non-Hispanic	39.5

(Age-adjusted) Incidence Rate per 100,000

Utah Colorectal Cancer Incidence, 2000-2006

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	690	2,394,590	28.8 (28.0- 29.6)	39.5 (38.4 - 40.6)	n/a
American Indian/Alaska Native	2	34,511	6.2 (3.5- 10.2)	13.9 (7.3 - 23.6)	↓
Asian or Pacific Islander	11	67,815	16.4 (13.0- 20.5)	31.0 (24.2 - 38.9)	↓
Black or African American	4	29,485	13.6 (9.0- 19.6)	44.5 (28.7 - 64.8)	
White	673	2,262,779	29.7 (28.9- 30.6)	39.8 (38.7 - 41.0)	
Hispanic or Latino	33	242,943	13.6 (11.9- 15.5)	40.3 (34.8 - 46.4)	
Non-Hispanic	658	2,151,647	30.6 (29.7- 31.5)	39.5 (38.3 - 40.6)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population
**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
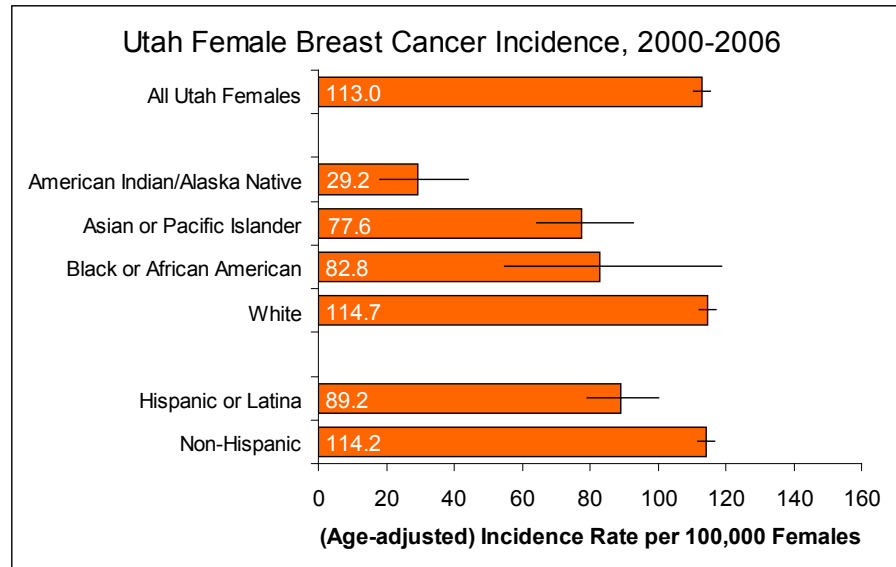
Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

![Cancer logo] # Cancer

Colorectal Cancer Deaths

Why Is It Important?
Colorectal cancer is the second leading cause of cancer-related death in Utah and the U.S.[19,20]

How Are We Doing?
- Utah's age-adjusted death rate from colorectal cancer was 14.0 per 100,000 population from 2000 to 2006.
- This rate is significantly lower than the U.S. colorectal cancer death rate.[136]
- Utah's death rate from colorectal cancer has decreased significantly since 2000.[136]
- There were no statistically significant differences in colorectal cancer death by race and ethnicity.

Utah Colorectal Cancer Deaths, 2000-2006

	Rate
All Utahns	14.0
American Indian/Alaska Native	*
Asian or Pacific Islander	12.7
Black or African American	24.1
White	14.0
Hispanic or Latino	11.0
Non-Hispanic or Latino	14.1

(Age-adjusted) Deaths per 100,000 Population

How Can We Improve?
Maintaining a healthy weight and eating a diet high in vegetables and fruits and low in processed or red meats reduces risk for colorectal cancer. Screening for this cancer is important as deaths can be substantially reduced when precancerous polyps are detected early and removed. The chance of surviving colorectal cancer is better than 90% when the cancer is diagnosed before it has gone beyond the intestinal wall.[19] Many studies suggest that racial and ethnic minorities tend to be diagnosed at later stages of cancer progression.[21] Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk. Persons at high risk may need to begin screening at a younger age.[19] The Utah Cancer Action Network conducts English and Spanish language media campaigns to encourage Utahns over age 50 to seek colon cancer screening and works with health care professionals to support state-of-the-art-treatment; increase access to care for patients with limited financial resources; reduce cultural barriers to care and support clinical trials to find better ways to prevent, screen for, diagnose or treat cancer.

Utah Colorectal Cancer Deaths, 2000-2006

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 *(95% CI Range)*	Age-adjusted Rate** *(95% CI Range)*	Sig.***
All Utahns	239	2,394,590	10.0 (9.5- 10.5)	14.0 (13.3- 14.7)	n/a
American Indian/Alaska Native	*	34,511	* (* - *)	* (* - *)	
Asian or Pacific Islander	4	67,815	5.9 (3.9- 8.5)	12.7 (8.3 - 18.4)	
Black or African American	2	29,485	6.8 (3.7- 11.4)	24.1 (12.7- 40.3)	
White	232	2,262,779	10.3 (9.8- 10.8)	14.0 (13.3- 14.7)	
Hispanic or Latino	8	242,943	3.4 (2.5- 4.3)	11.0 (8.1 - 14.6)	
Non-Hispanic or Latino	231	2,151,647	10.7 (10.2- 11.3)	14.1 (13.4- 14.8)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Due to a low frequency, these rates are unstable and have been suppressed.

**Age-adjusted to the U.S. 2000 standard population

***The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
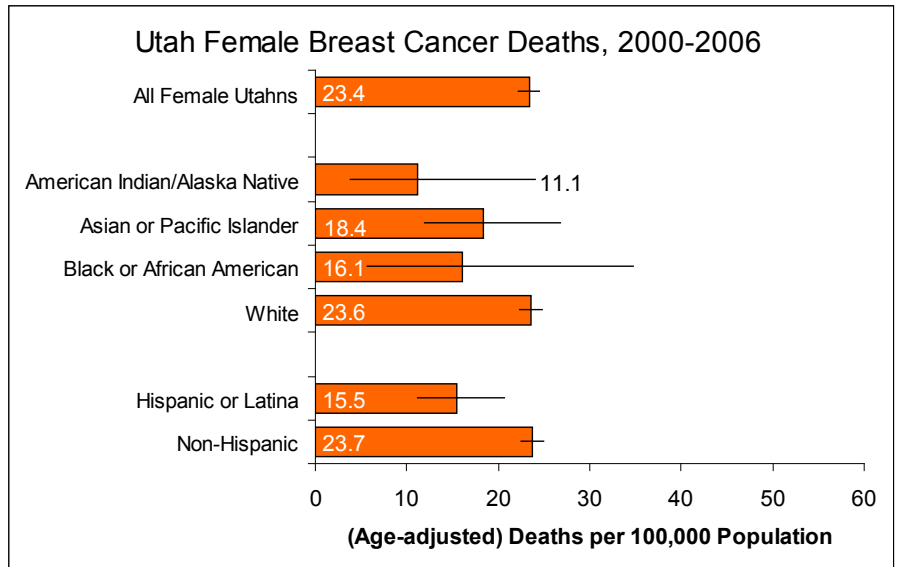
Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

Breast Cancer Incidence

Why Is It Important?

Breast cancer is the second leading cause of cancer death among U.S. women and the leading cause of cancer death among Utah women.[118]

How Are We Doing?

- There were 113.0 new breast cancer cases per 100,000 female population in Utah from 2000 to 2006 (age-adjusted rate).
- This rate is significantly lower than the U.S. breast cancer incidence rate.[137]
- American Indian/Alaska Native, Asian/Pacific Islander and Hispanic/Latina Utahns had significantly lower rates of breast cancer.

Utah Female Breast Cancer Incidence, 2000-2006

All Utah Females	113.0
American Indian/Alaska Native	29.2
Asian or Pacific Islander	77.6
Black or African American	82.8
White	114.7
Hispanic or Latina	89.2
Non-Hispanic	114.2

(Age-adjusted) Incidence Rate per 100,000 Females

How Can We Improve?

The exact causes of breast cancer are unknown. Some risk factors are not preventable, such as age, genetics, and when menstruation or menopause begin. Some lifestyle choices that may protect against breast cancer include breastfeeding; maintaining a healthy weight; exercising; giving birth before age 30; and avoiding alcohol, birth control pills and postmenopausal hormone therapy. More research is needed about how to prevent breast cancer.[121] The UDOH, Utah Cancer Control Program offers free mammograms to eligible women. Women who receive these screenings and lack health insurance coverage may be eligible for Medicaid benefits for the duration of their cancer treatment.

Utah Female Breast Cancer Incidence, 2000-2006

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Females	1,077	1,190,638	90.4 (88.4- 92.5)	113.0 (110.4 - 115.6)	n/a
American Indian/Alaska Native	3	17,197	19.9 (12.8- 29.7)	29.2 (18.3 - 44.3)	↓
Asian or Pacific Islander	19	34,721	53.9 (45.1- 64.0)	77.6 (64.4 - 92.6)	↓
Black or African American	4	13,157	32.6 (22.0- 46.5)	82.8 (54.8 - 118.9)	
White	1,050	1,125,563	93.3 (91.2- 95.5)	114.7 (112.1 - 117.3)	
Hispanic or Latina	47	112,892	41.8 (37.4- 46.5)	89.2 (79.2 - 100.1)	↓
Non-Hispanic	1,030	1,077,746	95.6 (93.4- 97.8)	114.2 (111.6 - 116.9)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.
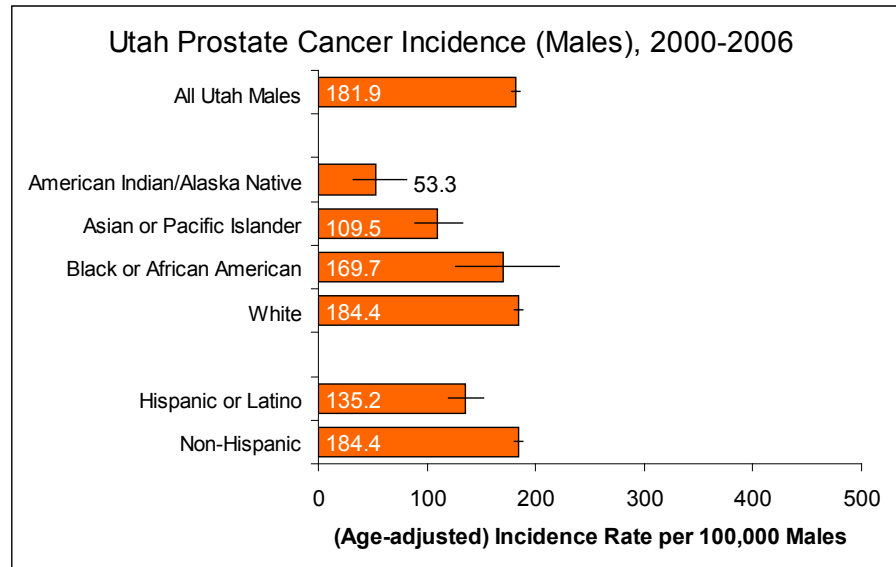
Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

Breast Cancer Deaths

Why Is It Important?

Breast cancer is the second leading cause of cancer death among U.S. women and the leading cause of cancer death among Utah women.[118]

How Are We Doing?

- Utah's age-adjusted death rate from breast cancer between 2000 to 2006 was 23.4 per 100,000 females in the population.
- Hispanic/Latina Utahns had significantly lower rates of breast cancer death.
- Utah's death rate from breast cancer was lower than the U.S. rate until the mid 1990s, but it is now similar to the national rate.[138]

Utah Female Breast Cancer Deaths, 2000-2006

	Rate
All Female Utahns	23.4
American Indian/Alaska Native	11.1
Asian or Pacific Islander	18.4
Black or African American	16.1
White	23.6
Hispanic or Latina	15.5
Non-Hispanic	23.7

(Age-adjusted) Deaths per 100,000 Population

How Can We Improve?

Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage.[25] Mammography is the best method for detecting breast cancer early. The American Cancer Society recommends that women age 40 and older have a mammogram every year. Women at high risk, based on family history or history of prior treatment with radiation, should get a mammogram and an MRI (magnetic resonance imaging) every year beginning at age 30.[26] The UDOH, Utah Cancer Control Program (UCCP) offers free mammograms to eligible women. Women who receive these screenings and lack health insurance coverage may be eligible for Medicaid benefits for the duration of their cancer treatment. The UCCP works with health care professionals to support state-of-the-art treatment; increase access to care for patients with limited financial resources; reduce cultural barriers to care and; support clinical trials to find better ways to prevent, screen for, diagnose, or treat cancer.

Utah Female Breast Cancer Deaths, 2000-2006

Race/Ethnicity	Avg Annual # of Deaths	Total Female Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Female Utahns	224	1,190,638	18.8 (17.9- 19.7)	23.4 (22.2- 24.5)	n/a
American Indian/Alaska Native	1	17,197	5.0 (1.8- 10.8)	11.1 (3.8 - 24.1)	
Asian or Pacific Islander	4	34,721	11.9 (8.0- 17.1)	18.4 (12.0- 26.8)	
Black or African American	1	13,157	8.5 (2.4- 14.2)	16.1 (5.7 - 34.8)	
White	218	1,125,563	19.4 (18.4- 20.4)	23.6 (22.4- 24.8)	
Hispanic or Latina	7	112,892	6.3 (4.7- 8.3)	15.5 (11.2- 20.7)	↓
Non-Hispanic	217	1,077,746	20.1 (19.1- 21.1)	23.7 (22.5- 24.9)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population
**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Prostate Cancer Incidence

Why Is It Important?

Prostate cancer is the second most commonly occurring form of cancer for men, after skin cancer, and is the second leading cause of cancer death for men in Utah and the U.S.[27,118]

How Are We Doing?

- From 2000 to 2006 there were 181.9 new prostate cancer cases per 100,000 Utah men (age-adjusted rate).
- American Indian/Alaska Native, Asian/Pacific Islander and Hispanic/Latino Utah men had significantly lower rates of prostate cancer.

Utah Prostate Cancer Incidence (Males), 2000-2006

	All Utah Males	181.9
American Indian/Alaska Native	53.3
Asian or Pacific Islander	109.5
Black or African American	169.7
White	184.4
Hispanic or Latino	135.2
Non-Hispanic	184.4

(Age-adjusted) Incidence Rate per 100,000 Males

How Can We Improve?

The exact causes of prostate cancer are unknown. Risk increases with age. Genetics play an important role in men who get prostate cancer at a younger age.[28] More research is needed about how to prevent prostate cancer. The UDOH, Utah Cancer Control Program manages a statewide, grassroots education campaign to inform men of the risk of prostate cancer and the risks and benefits of screening.

Utah Prostate Cancer Incidence (Males), 2000-2006

Race/Ethnicity	Avg Annual # of Cases	Total Male Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Males	1,447	1,203,952	120.2 (117.9- 122.6)	181.9 (178.4 - 185.6)	n/a
American Indian/Alaska Native	3	17,314	17.3 (10.7- 26.5)	53.3 (32.3 - 81.3)	↓
Asian or Pacific Islander	15	33,094	45.8 (37.5- 55.3)	109.5 (89.1 - 132.7)	↓
Black or African American	9	16,328	53.4 (40.8- 68.6)	169.7 (126.5 - 221.5)	
White	1,420	1,137,216	124.9 (122.5- 127.4)	184.4 (180.8 - 188.1)	
Hispanic or Latino	44	130,051	33.9 (30.3- 37.9)	135.2 (119.3 - 152.3)	↓
Non-Hispanic	1,404	1,073,901	130.7 (128.2- 133.3)	184.4 (180.7 - 188.1)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population

**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

Contact: UDOH Cancer Control Program, 801-538-6712, http://health.utah.gov/ucan/

Cancer

Prostate Cancer Deaths

Why Is It Important?

Prostate cancer is the second most commonly occurring form of cancer for men, after skin cancer, and is the second leading cause of cancer death for men in Utah and the U.S.[27,118]

How Are We Doing?

- Utah's age-adjusted death rate from prostate cancer from 2000 to 2006 was 26.7 per 100,000 males.
- There were no statistically significant differences in prostate cancer death rates by race and ethnicity.

Utah Prostate Cancer Deaths (Males), 2000-2006
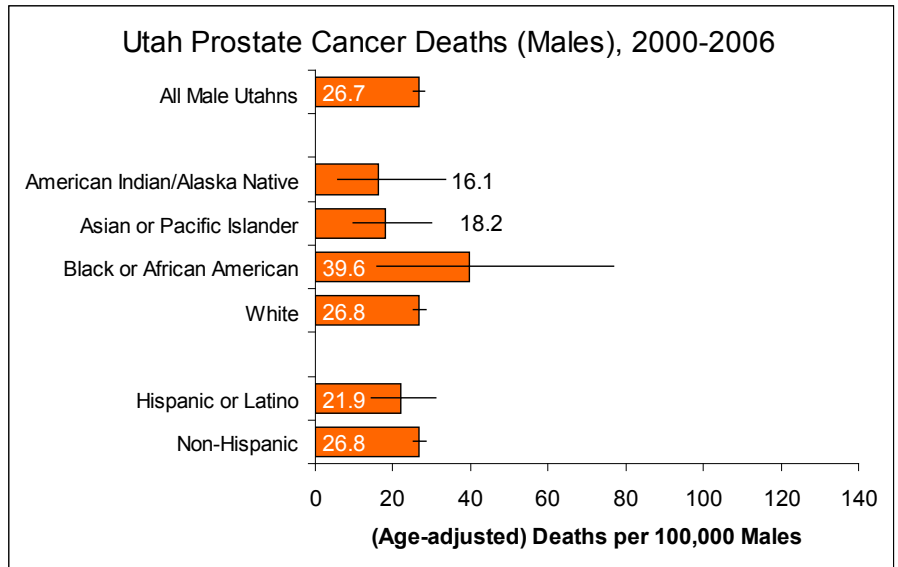
How Can We Improve?

Screenings are available, but it is not yet known whether early detection results in reduced mortality from this disease. In the early stages of prostate cancer, the disease stays in the prostate and is not life threatening. But without treatment, cancer can spread to other parts of the body and eventually cause death. To increase the likelihood of early detection and the best chance for a cure, men and their doctors are increasingly looking to prostate cancer screening.[28] The UDOH, Utah Cancer Control Program works with health care professionals to support state-of-the art-treatment; increase access to care for patients with limited financial resources; reduce cultural barriers to care, and support clinical trials to find better ways to prevent, screen for, diagnose, or treat cancer.

Utah Prostate Cancer Deaths (Males), 2000-2006

Race/Ethnicity	Avg Annual # of Deaths	Total Male Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Males	179	1,203,952	14.8 (14.0- 15.7)	26.7 (25.2- 28.2)	n/a
American Indian/Alaska Native	1	17,314	5.0 (1.8- 10.8)	16.1 (5.7 - 33.7)	
Asian or Pacific Islander	2	33,094	6.5 (3.6- 10.7)	18.2 (9.9 - 29.8)	
Black or African American	1	16,328	7.9 (3.6- 14.9)	39.6 (15.8- 76.7)	
White	174	1,137,216	15.3 (14.5- 16.2)	26.8 (25.3- 28.4)	
Hispanic or Latino	5	130,051	3.6 (2.5- 5.1)	21.9 (14.6- 30.9)	
Non-Hispanic	174	1,073,901	16.2 (15.3- 17.1)	26.8 (25.3- 28.4)	

Source: Utah Cancer Registry, SEER. Population Estimates: U.S. Census Bureau Population Estimates Program. Estimates are for average of 2000-2006 years.

*Age-adjusted to the U.S. 2000 standard population
**The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

UTAH DEPARTMENT OF HEALTH

Center for Multicultural Health

	Utah, Overall	American Indian/ AK Native	Asian	Black/ African Amer.	Native HI/ Pacific Islander	White	His- panic/ Latino
Demographic Context							
Proportion of the Utah Population	100.0%	1.7%	2.6%	1.5%	1.0%	91.8%	11.5%
Age Distribution (median age in years)	28.5	24.4↓	27.3↓	17.1↓	21.3↓	28.7↑	24.4↓
Life Expectancy at Birth (in years)	78.9	76.7	82.8	77.2	78.3	79.0	79.9
Poverty	10.0%	22.1%↑	14.3%↑	19.6%↑	14.4%↑	9.2%	19.5%↑
Child Poverty	11.1%	25.9%↑	11.5%	17.9%↑	15.2%	10.0%↓	24.5%↑
Health Care Services and Systems							
No Health Insurance Coverage	11.1%	17.7%↑	7.5%	7.4%	23.0%	8.0%↓	35.7%↑
Unable to Access Health Care	15.9%	38.2%↑	21.1%	21.9%↑	17.0%	15.0%	21.3%↑
No Primary Care Provider	10.9%	11.1%	14.1%	14.8%	7.0%	9.0%↓	23.0%↑
Routine Medical Checkup	71.3%	75.0%	70.0%	74.8%	79.5%↑	70.7%	74.1%
Emergency Department Point of Access	6.8%	16.7%	4.5%	11.3%	11.7%	6.8%	7.4%
Early Prenatal Care	79.1%	56.2%↓	75.2%↓	61.2%↓	48.1%↓	80.5%↑	63.4%↓
Colon Cancer Screening	50.8%	48.0%	44.9%	47.4%	55.7%	51.2%	38.0% ↓
Pap Test	75.5%	64.7%	69.1%	86.5%	70.9%	75.4%	80.1%
Mammogram	67.6%	51.6%↓	67.8%	66.2%	63.1%	68.0%	66.6%
Prostate Cancer Screening	58.0%	44.1%	43.8%	59.6%	35.5%	59.8%	35.2%↓
Blood Cholesterol Screening	64.5%	50.5%↓	57.1%	46.5%	54.2%	66.6%↑	44.7%↓
Influenza Immunization, Adults	35.8%	34.6%	34.7%	35.6%	39.6%	36.7%	25.8%↓
Pneumonia Immunization, Adults 65+	67.1%	63.5%	61.2%	66.0%	60.3%	67.4%	55.3%↓

The values in this table are crude rates that represent the number of people affected in the respective populations. When appropriate, the arrows come from age-adjusted rates to compare populations with different age distributions. For more information, see Appendix E.

Racial/Ethnic Population has Worse Rate than Statewide Population for this Measure

Racial/Ethnic Population has Better Rate than Statewide Population for this Measure

↑   Racial/Ethnic Population has Significantly Higher Rate than Statewide Population for this Measure

↓   Racial/Ethnic Population has Significantly Lower Rate than Statewide Population for this Measure

* Insufficient Data to Meet UDOH Standards for Reliability

** Asian and Native Hawaiian/Pacific Islander Combined

Appendix A: Utah Health Status by Race and Ethnicity: 2010 Summary Sheet

	Utah, Overall	American Indian/ AK Native	Asian	Black/ African Amer.	Native HI/ Pacific Islander	White	His-panic/ Latino
Risk Factors for Illness or Injury							
Overweight or Obese	56.4%	72.5%↑	32.4%↓	66.3%↑	75.1%↑	55.9%	62.2%↑
No Physical Activity	18.6%	26.5%↑	19.3%	28.6%↑	16.1%	17.3%↓	31.1%↑
High Cholesterol	21.2%	10.1%↓	13.9%	6.1%↓	8.9%	22.4%	10.9%↓
High Blood Pressure	19.0%	20.4%	13.0%	21.1%	12.8%	19.6%	12.8%
Cigarette Smoking	10.8%	19.8%↑	9.8%	20.0%↑	13.2%	10.3%	13.3%↑
Exposure to Secondhand Smoke	3.6%	7.6%↑	2.7%	5.7%	*	3.1%	4.5%
Chronic Drinking	2.8%	6.5%	0.6%	5.3%	1.4%	2.8%	2.8%
Binge Drinking	9.0%	17.6%↑	8.7%	8.9%	13.6%	8.4%	14.7%↑
Driving Under the Influence	0.7%	2.2%	0.0%	2.7%	0.0%	0.5%	1.0%
Protective Factors for Health							
Daily Fruit Consumption	30.5%	32.2%	43.9%↑	40.0%	44.5%	30.0%	32.6%
Daily Vegetable Consumption	22.7%	15.9%	29.0%↑	17.4%	22.2%	23.4%	14.2%↓
Recommended Physical Activity	56.0%	54.7%	51.6%	45.5%	65.3%	57.0%	48.6%↓
Knowledge of Stroke Symptoms	38.4%	31.6%	22.6%↓	25.4%↓	21.5%	40.5%↑	20.8%↓
Knowledge of Heart Attack Symptoms	29.5%	24.4%	24.1%	21.2%	16.4%	31.1%↑	14.3%↓
Infectious Diseases							
Tuberculosis (Per 100,000 Population)	1.4	4.0	14.1↑	16.6↑	11.0↑	0.3↓	4.2↑
Chlamydia (Per 100,000 Population)	221.0	331.6↑	188.1	745.0↑	651.9↑	180.1↓	447.6↑
Gonorrhea (Per 100,000 Population)	17.3	12.5	18.4	158.4↑	10.3	14.6↓	26.4↑

The values in this table are crude rates that represent the number of people affected in the respective populations. When appropriate, the arrows come from age-adjusted rates to compare populations with different age distributions. For more information, see Appendix E.

■ (dark red) Racial/Ethnic Population has Worse Rate than Statewide Population for this Measure

■ (light green) Racial/Ethnic Population has Better Rate than Statewide Population for this Measure

↑ Racial/Ethnic Population has Significantly Higher Rate than Statewide Population for this Measure

↓ Racial/Ethnic Population has Significantly Lower Rate than Statewide Population for this Measure

* Insufficient Data to Meet UDOH Standards for Reliability

** Asian and Native Hawaiian/Pacific Islander Combined

Appendix A: Utah Health Status by Race and Ethnicity: 2010 Summary Sheet

UTAH DEPARTMENT OF HEALTH — **Center for Multicultural Health**

	Utah, Overall	American Indian/ AK Native	Asian	Black/ African Amer.	Native HI/ Pacific Islander	White	His- panic/ Latino
Health of Mothers and Infants							
Infant Mortality (Per 1,000 Births)	4.5	4.7	4.5	8.4	8.8↑	4.4	5.1
Low Birth Weight	6.8%	7.8%	9.5%↑	11.4%↑	6.3%	6.7%	7.4%↑
Preterm Birth	9.7%	10.9%	9.9%	13.0%↑	10.9%	9.7%	9.6%
Obesity in Pregnancy	15.9%	27.9%↑	5.0%↓	16.6%	39.5%↑	15.6%	17.0%↑
Smoking During Pregnancy	4.0%	5.1%	1.4%	7.9%	4.4%	4.1%	1.8%↓
Gestational Diabetes	3.1%	7.2%↑	6.8%↑	2.6%	5.3%↑	2.9%	4.8%↑
Folic Acid Consumption, Women 18-44	46.2%	34.7%	44.9%	35.6%	31.8%↓	47.3%	34.6%↓
Births to Adolescents (Per 1,000 Girls 15-19)	33.8	53.1↑	23.4↓	38.1	60.1↑	34.6	113.4↑
Unintended Pregnancy	32.7%	52.0%↑	36.5%	59.1%↑	56.9%↑	31.7%	42.2%↑
Ever Breastfeeding	91.1%	70.3%↓	90.0%	90.2%*	89.5%*	91.4%	90.3%
Still Breastfeeding 2-6 Months Postpartum	67.5%	43.9%↓	66.5%	47.3%↓	45.8%↓	68.2%	51.7%↓
Postpartum Depression	13.0%	19.4%	19.8%	18.2%*	27.0%↑	12.5%	15.2%↑
Major Structural Birth Defects (Per 1,000 Births)	22.6	21.5	18.7**↓	24.9	18.7**↓	23.2 ↑	20.5↓
Orofacial Clefts (Per 10,000 Births)	21.4	35.2↑	20.1**	*	20.1**	21.5	20.6
Congenital Heart Defects (Per 10,000 Births)	57.5	56.6	53.9**	71.7	53.9**	57.5	58.1
Injury and Violence							
Unintentional Injury Deaths (Per 100,000 Population)	27.5	39.5	13.4	18.4	26.9	27.8	20.6
Motor Vehicle Traffic Crash Deaths (Per 100,000 Population)	10.5	20.5	7.8	10.1	12.1	10.5	12.5
Poisoning Deaths (Per 100,000 Population)	15.6	17.1	6.6↓	12.3	*	16.6	8.9↓
Suicide (Per 100,000 Population)	13.6	19.2	11.7	6.6*↓	6.1*	14.2	8.0↓
Homicide (Per 100,000 Population)	2.1	10.0↑	6.6↑	7.4*↑	11.0*↑	2.0	5.8↑
Violent Deaths (Per 100,000 Population)	31.4	49.8↑	24.9↓	27.1	21.9	32.9 ↑	25.1↓

The values in this table are crude rates that represent the number of people affected in the respective populations. When appropriate, the arrows come from age-adjusted rates to compare populations with different age distributions. For more information, see Appendix E.

    Racial/Ethnic Population has Worse Rate than Statewide Population for this Measure

    Racial/Ethnic Population has Better Rate than Statewide Population for this Measure

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↓   Racial/Ethnic Population has Significantly Lower Rate than Statewide Population for this Measure

* Insufficient Data to Meet UDOH Standards for Reliability

** Asian and Native Hawaiian/Pacific Islander Combined

UTAH DEPARTMENT OF HEALTH — Center for Multicultural Health

	Utah, Overall	American Indian/ AK Native	Asian	Black/ African Amer.	Native HI/ Pacific Islander	White	His-panic/ Latino
Chronic Diseases and Conditions							
Fair or Poor Health	11.8%	23.2%↑	7.6%	13.8%	4.7%↓	10.6%↓	25.1%↑
Poor Physical Health Status	13.7%	19.3%↑	10.7%	8.7%	9.8%	13.8%	13.7%↑
Poor Mental Health Status	15.0%	22.5%↑	9.2%↓	16.5%	16.5%	15.0%	15.0%
Activity Limitation	18.4%	19.7%	5.2%↓	9.1%↓	9.6%↓	19.4%↑	10.3%↓
Major Depression	4.2%	5.5%	4.0%	2.6%↓	4.2%↓	4.5%	8.2%↑
Arthritis Prevalence	22.3%	27.6%↑	6.2%↓	19.7%	11.3%	23.5%	11.0%↓
Asthma Prevalence	8.1%	9.1%	3.5%↓	4.8%	8.5%	8.4%	4.4%↓
Diabetes Prevalence	5.6%	9.2%↑	3.4%	7.7%	4.7%	5.6%	5.5%↑
Diabetes Deaths (Per 100,000 Population)	43.5	40.5	24.3	33.3	52.9↑	44.1	20.8
Heart Disease Deaths (Per 100,000 Population)	110.1	43.8↓	41.9↓	49.9	56.6	114.0	27.6↓
Coronary Heart Disease Deaths (Per 100,000 Population)	59.2	27.0	22.9↓	26.7	33.4	61.2	16.5↓
Stroke Deaths (Per 100,000 Population)	28.1	14.6	19.0	12.5	23.2	28.8	9.7
Cancer							
Lung Cancer Incidence (Per 100,000 Population)	21.3	7.0	15.6**	14.1↑	15.6**	21.8	8.8
Lung Cancer Deaths (Per 100,000 Population)	17.4	7.5	12.4**	11.1	12.4**	17.8	5.6
Colorectal Cancer Incidence (Per 100,000 Population)	28.8	6.2↓	16.4**↓	13.6	16.4**↓	29.7	13.6
Colorectal Cancer Deaths (Per 100,000 Population)	10.0	*	5.9**	6.8	5.9**	10.3	3.4
Breast Cancer Incidence (Per 100,000 Female Population)	90.4	19.9↓	53.9**↓	32.6	53.9**↓	93.3	41.8↓
Breast Cancer Deaths (Per 100,000 Female Population)	18.8	5.0	11.9**	8.5	11.9**	19.4	6.3↓
Prostate Cancer Incidence (Per 100,000 Male Population)	120.2	17.3↓	45.8**↓	53.4	45.8**↓	124.9	33.9↓
Prostate Cancer Deaths (Per 100,000 Male Population)	14.8	5.0	6.5**	7.9	6.5**	15.3	3.6

The values in this table are crude rates that represent the number of people affected in the respective populations. When appropriate, the arrows come from age-adjusted rates to compare populations with different age distributions. For more information, see Appendix E.

■ (dark red) Racial/Ethnic Population has Worse Rate than Statewide Population for this Measure

■ (light green) Racial/Ethnic Population has Better Rate than Statewide Population for this Measure

↑ Racial/Ethnic Population has Significantly Higher Rate than Statewide Population for this Measure

↓ Racial/Ethnic Population has Significantly Lower Rate than Statewide Population for this Measure

* Insufficient Data to Meet UDOH Standards for Reliability

** Asian and Native Hawaiian/Pacific Islander Combined

Appendix B: Racial and Ethnic Groupings

The authors acknowledge that significant diversity exists within each of the racial and ethnic categories used in this report and that the use of broad categories sometimes obfuscates health disparities among smaller subgroups. The category labeled "Asian" combines persons from such diverse cultures as Japan, China, Southeast Asia, and India, and is even more diverse when it has been combined with persons from Native Hawaiian and Pacific Islander cultures. The category for "Black or African American" includes both descendants of persons who were enslaved during the U.S. slave period, as well as more recent immigrants from the African continent and elsewhere. All racial and ethnic groups include persons who have recently arrived in the U.S., as well as those whose families have lived here for several generations.

Despite the inherent diversity within each category, this report is evidence that the UDOH believes it is worthwhile to aggregate health status data for persons from similar cultures to ascertain whether health status disparities exist. The report uses the racial and ethnic categories recommended by the U.S. Office of Management and Budget (OMB) wherever possible. The following excerpts from the Federal Register document those categories.

The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting are defined as follows:

American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Black or African American. A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."

Hispanic or Latino. A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."

Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Respondents shall be offered the option of selecting one or more racial designations. Recommended forms for the instruction accompanying the multiple response question are "Mark one or more" and "Select one or more."[122]

Appendix B: Racial and Ethnic Groupings

In keeping with OMB guidance, UDOH data sources use self-report as the ideal standard for defining race and ethnicity whenever possible.

"It is important to remember that the Federal racial and ethnic data categories are social-political constructs and that they should not be interpreted as being genetic, biological, or anthropological in nature…The 1997 standards emphasize self-reporting or self-identification as the preferred method for collecting data on race and ethnicity. The standards do not establish criteria or qualifications (such as blood quantum levels) that are to be used in determining a particular individual's racial or ethnic classification. They do not tell an individual who he or she is, or specify how an individual should classify himself or herself. Self-identification for race and Hispanic or Latino origin means that the responses are based on self-perception and therefore are subjective, but by definition, the responses are accurate. In situations where self-reporting is not practicable or feasible, such as identification by personnel of funeral homes, observer identification may be used."[123]

American Indian race is different from American Indian tribal membership. Utahns who describe themselves as of American Indian race may or may not belong to a federally recognized Utah tribe. For information about Utah tribal members, contact tribal leadership.

To provide flexibility and ensure data quality, separate questions shall be used wherever feasible for reporting race and ethnicity. When race and ethnicity are collected separately, ethnicity shall be collected first. If race and ethnicity are collected separately, the minimum designations are:

Race:

American Indian or Alaska Native
Asian
Black or African American
Native Hawaiian or Other Pacific Islander
White

Ethnicity:

Hispanic or Latino
Not Hispanic or Latino[122]

Readers have likely noticed that the categories used on the data pages throughout the report vary. The above OMB classification scheme was the goal, but several data sources did not allow for data aggregation according to this standard.

Appendix C: Population Count Estimates

The 1997 OMB Standards (see Appendix B) were implemented by the U.S. Census Bureau in 2000, whereas data from our various health data sets converted to the standard at different points in time.

Prior to the 2000 U.S. Decennial Census, the race estimates were reported in a rather simple table. Note that the Asian and Pacific Islander populations were combined. See Table A.

After the 2000 U.S. Decennial Census, the race estimates were reported in a table that was much more complex. Note that the Asian and Pacific Islander populations were separated out. The same standards are used in reporting race estimates from the Census Bureau's American Community Survey (ACS). Because the ACS uses a sample of the population, the estimates also include a margin of error. The 'Race alone or in combination' means in combination with one or more other races. Therefore, the sum of the five race groups adds to more than the total population because individuals may report more than one race. See Table B.

The Census Bureau developed a method to bridge population estimates from later years back to the earlier coding scheme. If an individual reported only one race, it was their primary race. Individuals who reported more than one race were distributed into their respective presumed primary race categories based on an algorithm developed by the Census Bureau. This method once again combined the Asian and Pacific Islander populations.

However, the UDOH preferred the new OMB standard that separated out Asian and Native Hawaiian/Pacific Islander populations. Staff in the UDOH Office of Public Health Assessment developed a method that expanded on the Census Bureau's bridging method to allow for manually separating out the Asian from the Native Hawaiian/Pacific Islander populations in the bridged estimates. This was done using the following logic.

Table A: U.S. 1990 Decennial Census (April 1990) Utah Population Estimates by Race

White	1,615,845
Black or African American	11,576
American Indian, Eskimo, or Aleut	24,283
Asian or Pacific Islander	33,371
Other race	37,775

Table B: United States Census Bureau, American Community Survey 2006-2008. Utah Population Estimates by Race

Race Alone

White	2,396,824	+/-5,172
Black or African American	27,075	+/-1,524
American Indian and Alaska Native	30,596	+/-1,552
Asian	52,882	+/-1,449
Native Hawaiian and Other Pacific Islander	20,187	+/-1,093
Some other race	83,441	+/-4,645
Two or more races	52,495	+/-3,082

Race Alone or in Combination with One or More Other Races

White	2,446,218	+/-5,401
Black or African American	38,978	+/-1,037
American Indian and Alaska Native	44,701	+/-1,340
Asian	68,048	+/-956
Native Hawaiian and Other Pacific Islander	27,306	+/-980
Some other race	93,417	+/-4,856

Appendix C: Population Count Estimates

A current bridged race estimate for Asian/Pacific Islander combined was examined. This included Utahns who reported Asian as their sole race, Utahns who reported Native Hawaiian/Pacific Islander as their sole race, and other Utahns who were placed in the "Asian or Native Hawaiian/Pacific Islander" bridged race category because they had reported two or more races on the Census form. The assumption was made that if those Utahns had been bridged separately into an Asian versus a Native Hawaiian/Pacific Islander category, the percentage distribution would be the same as it was for those reporting only one race. Since population data were needed by sex and age, the populations were partitioned by sex and age for 23 different age groups, and the logic was applied to each age/sex group. The final population estimates are then adjusted to the Utah Governor's Office of Planning and Budget population estimates. This is done by taking the race/age/sex proportions calculated from the Census estimates and applying them to the appropriate GOPB age group estimate.

For calculating health indicator rates, a population denominator is required. Most UDOH data sets use the OPHA bridged population estimates as a denominator.

When reporting simple population counts, such as those reported in the Demographic Context section of this report, the UDOH Center for Multicultural Health prefers to report "Race Alone or in Combination with Other Races" rather than "Race Alone" numbers for the following reasons:

- The "Race Alone" numbers exclude multi-racial people from the racial categories their parents belong to, even though they may identify with one or both of these races.

- The "Race Alone" numbers group multi-racial people into a single category, "Two or More Races." This category includes people as racially dissimilar as people of mixed American Indian and African American descent and people of mixed Asian and Pacific Islander descent.

✺ Appendix D: Computing Rates

According to Webster's New Collegiate Dictionary, a *Rate* is:
- a quantity, amount, or degree of something
- measured per unit of something else

In public health, we commonly use rates that are the number of health events (such as motor vehicle crash deaths or influenza cases) per some number of persons in the population. Examples of rates commonly used in public health include the following:
- 35.5% of Hispanic or Latino persons in Utah do not have health insurance coverage (a percent is the quantity per 100)
- 52.9 diabetes deaths per 100,000 Utah Pacific Islanders
- 8.4 infant deaths per 1,000 births among Black/African American mothers

In the above examples, the rate has been expressed as the number of events per 100, 1,000 or 100,000 persons in the population. This is done as a convenience, so that we do not have to read and interpret small fractions. For instance, the diabetes deaths per 100,000 Pacific Islanders Utahns in the above example could also be expressed as .000529 risk per person. It is merely easier to read and compare the rate expressed as 52.9 per 100,000 persons.

The following table contains information on the number of coronary heart disease (CHD) deaths by race and ethnicity. The actual number of health events is not very useful because the populations are so different in size. Many more deaths are expected in the White race group because Utah's White population is much larger than the others. Calculated rates make a meaningful comparison across racial and ethnic groups possible.

Utah Coronary Heart Disease Deaths, 2004-2008			
	Average annual # deaths	Total 2006 population	Crude rate per 100,000 persons
All Utahns	1,548	2,615,129	59.2
American Indian/AK Native	10	37,002	27.0
Asian	13	56,736	22.9
Black/African American	9	33,663	26.7
Native HI/Pacific Islander	7	21,538	33.4
White	1,509	2,466,190	61.2
Hispanic/Latino	49	294,552	16.5
Non-Hispanic	1,500	2,320,577	64.6

Rates are calculated using a simple formula. For instance, for Asians in the above table, there were 65 heart disease deaths during 2004-2008 (five years), or an average of 13 annual deaths. There were 56,736 persons in the population.

Computation: 13 / 56,736 = .000229 (risk per person)

The rate is multiplied by 100,000 to make it easier to read, and the result is 22.9 per 100,000 persons.

Appendix E: Age-adjusted Rates

In Appendix D, rates were calculated for coronary heart disease deaths by race and ethnicity. The rates that were calculated are known as "crude" rates because they have not been adjusted in any way. However, a crude rate can be misleading when comparing populations that differ in age because the crude rate for most causes of death will be higher in populations with a larger proportion of elderly individuals. For example, Utah's Hispanic/Latino population is younger than the non-Hispanic or Latino population—it has higher proportions of young persons and lower proportions of elderly persons. See the table and figure below.

Age Distributions for Utah's Hispanic/Latino and Non-Hispanic Populations

| | Population Counts | | Percentage Distributions | |
	Hispanics/ Latinos	*Non- Hispanics*	*Hispanics/ Latinos*	*Non- Hispanics*
0-4 Years	37,621	216,646	12.8%	9.3%
5-14 Years	60,493	371,459	20.5%	16.0%
15-24 Years	48,886	407,579	16.6%	17.6%
25-34 Years	61,328	361,376	20.8%	15.6%
35-44 Years	41,002	279,715	13.9%	12.1%
45-54 Years	24,190	278,493	8.2%	12.0%
55-64 Years	11,754	194,097	4.0%	8.4%
65-74 Years	5,663	114,217	1.9%	4.9%
75-84 Years	2,868	72,748	1.0%	3.1%
85+ Years	746	24,248	0.3%	1.0%
	294,552	*2,320,577*	*100.0%*	*100.0%*

Age Distribution in Utah's Hispanic and Non-Hispanic Populations, 2006
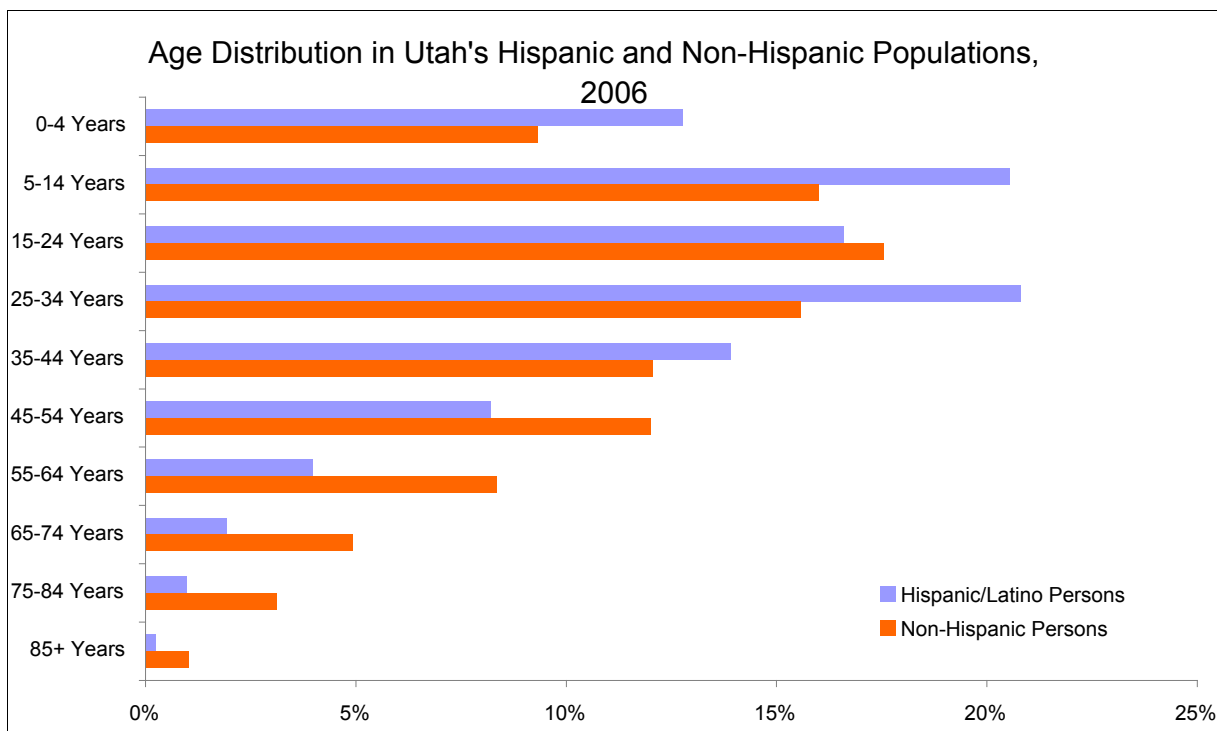
✳ Appendix E: Age-adjusted Rates

The following table presents lung cancer incidence rates for Hispanic/Latino and non-Hispanic persons. The age-specific incidence rates increase with increasing age for both ethnic groups. The crude rate is lower in the Hispanic/Latino group because there was a smaller proportion of older persons than in the non-Hispanic group.

Lung Cancer: Age-specific and Crude Incidence Rates per 100,000 Persons, 2000-2006

Age-specific Rates	Hispanics/ Latinos	Non- Hispanics
0-4 Years	0	*
5-14 Years	0	0
15-24 Years	0	*
25-34 Years	*	0.8
35-44 Years	*	4.5
45-54 Years	7.0	16.6
55-64 Years	57.9	64.0
65-74 Years	167.4	159.6
75-84 Years	224.9	189.1
85+ Years	164.2	121.7
Crude Rate, All Ages	**8.8**	**22.7**

* Due to a low frequency, these rates are unstable and have been suppressed.

This report presents data on racial and ethnic disparities. Disparities are differences, or comparisons, between at least two different population groups. To make sure the differences are really due to health status and risk, and not merely due to the age differences between the two populations, we adjust the data to find out what the rates would be if each population group compared had exactly the same age distribution. The "age-adjusted" rate applies the same population age distribution to the age-specific rates from both populations. The convention currently used in public health for doing this is the year 2000 U.S. population estimates.

	U.S. 2000 Standard Population	Hispanics/ Latinos	Non- Hispanics
0-4 Years	6.9135%	0	*
5-14 Years	14.5565%	0	0
15-24 Years	13.8646%	0	*
25-34 Years	13.5573%	*	0.8
35-44 Years	16.2613%	*	4.5
45-54 Years	13.4834%	7.0	16.6
55-64 Years	8.7247%	57.9	64.0
65-74 Years	6.6037%	167.4	159.6
75-84 Years	4.4842%	224.9	189.1
85+ Years	1.5508%	164.2	121.7
Age-adjusted Rate		**30.5**	**29.7**

* Due to a low frequency, these rates are unstable and have been suppressed.

Appendix E: Age-adjusted Rates

The age-adjusted lung cancer rates by ethnicity are virtually identical for Hispanics/Latinos and non-Hispanics.

Age-adjusted rates will vary depending on the age-adjustment categories chosen by the data analyst. The Utah Cancer Registry used the 10 age categories described in this example. The Behavioral Risk Factor Surveillance System used the categories 18-34, 35-49 and 50 and older. Most other UDOH data sets used the following categories for this report: 44 years and younger, 45-64 years, and 65 years and older.

Most data tables in this report include three indications of the size of the problem: the number of events, the crude rate, and the age-adjusted rate. Which one should be used? It depends on what question is asked.

> Question: How many people died?
> Measure: Number of events

> Question: What is the underlying risk in my population?
> Measure: Crude rate

> Question: Is there a health status disparity between groups?
> Measure: Age-adjusted rates

Crude rates estimate the proportion of the population that has a health problem. Health department staff use **age-adjusted rates** to determine racial and ethnic disparities. Age-adjusted rates answer the hypothetical question, "If this group had the same age distribution as the entire United States population in the year 2000, what would its rate be?" They do not estimate the actual rates of disease in the population.

Appendix F: Confidence Intervals

Confidence intervals have been reported in the data tables and as error bars in the graphs for all measures in the report. Confidence intervals indicate the reliability of the measure. A more thorough description of statistical reliability may be found in Appendix G of this report.

Although the confidence interval concept draws from the scientific literature on sampling theory, it is also relevant when measures have been calculated from the entire population. Public health studies typically draw on data over a finite time period. Health events do not occur at regularly-spaced intervals. Even though the underlying risk for a health outcome might be stable, the measurable health events, such as infant mortality, occur at random intervals. Thus, when we measure a health event over an arbitrary time period such as a calendar year, the measurement is taken from a sample in time. Therefore, each calculated rate (whether based upon survey data or count data) is an estimate and confidence intervals define a range in which the true score (which would represent everyone at all times) would lie.

The 95% confidence interval indicates the range of values within which the statistic would fall 95% of the time if the researcher were to calculate the statistic (e.g., a percentage or rate) from an infinite number of samples of the same size drawn from the same base population.

In public health practice, the casual user may think of a confidence interval as the range of probable true scores. The following statements are a logical extension of this thinking:

Observed measure:
- The infant mortality rate for Utah from 2004 to 2007 was 4.5 infant deaths per 1,000 births, with a 95% confidence interval from 4.2 to 4.8.

Logical corollaries:
- Thus, assuming this is a valid measure of infant mortality, there is a very high probability (95%) that the true score lies between 4.2 and 4.8 infant deaths per 1,000 births.
- The best estimate for the underlying risk in the entire Utah population is 4.5 infant deaths per 1,000 births, but the true risk might lie somewhere between 4.2 and 4.8.

The confidence interval may be used to ascertain whether a measure in a given community is statistically significant; that is, whether the difference is statistically higher or lower than the overall state rate. For example, the death rate for homicides in Utah (2005-2007) among Hispanic/Latinos was 4.4 per 100,000 population, with a confidence interval that ranged from 3.2 to 5.8. The lower limit of the 95% confidence range (3.2) is greater than the overall state rate of 1.9 deaths per 100,000 population. Therefore, it can be said that the homicide death rate in Utah's Hispanic/Latino population is higher than the state rate, and that the difference is statistically significant. Please note, however, that a difference can be meaningful without being statistically significant. The point estimate (in this example, 4.4) is still the best estimate of the underlying risk. We need to be mindful of the confidence interval, but we should not be overdependent on it in interpreting results.

Appendix F: Confidence Intervals

The following methods were applied in order to estimate the confidence bounds in these circumstances:

Count Data

Inverse Gamma Distribution was applied to count data.

> Anderson RN, Rosenberg HM. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. National vital statistics reports; vol 47 no. 3. Hyattsville, Maryland: National Center for Health Statistics. 1998.

Survey Data

Confidence intervals for survey data (BRFSS, PRAMS, and UHAS) were calculated using a log transformation. Confidence intervals were constructed for the log prevalence using SUDAAN standard errors and exponentiated to produce bounds for the prevalence of estimates.

> Korn EL, Graubard BI. Analysis of Health Surveys. Wiley: New York, 1999:66.

Appendix G: Statistical Reliability and Validity

Measures of health status explain the underlying disease risk in a population and influence health policy. For instance, if a certain city has a consistently high rate of food poisoning, officials may investigate the food establishments in that city in an attempt to reduce the risk of food poisoning. This report is an exercise in surveillance among Utah's racial and ethnic communities. If one community has a consistently high rate of a certain disease, we would want to investigate it further in an attempt to identify and reduce the disease risk in that community.

In practice, public health surveillance uses objective measures, such as rates of death, illness, injury, and hospitalization to indicate a potential problem, one that might merit further investigation. Many objective measures have been presented in this report. Successfully interpreting the measures in this report requires knowing how well the measure represents the underlying disease risk in the community. There are two important elements involved in the quality of a measure: reliability and validity.

In the three figures below, the bull's-eye of the target represents the true underlying risk of disease in a population, and the holes in the target represent multiple objective measurements of risk. In the first figure, the measure is reliable—it measures nearly the same value each time. But the measure in figure 1 is not valid—the average of the scores is not close to the true underlying risk. In the second figure, the scores are not very reliable—there is a lot of variability in the scores, but they center around the true risk value. In the third figure, the measure is both reliable and valid. The term "accuracy" is often used in relation to validity, while the term "precision" is used to describe reliability.
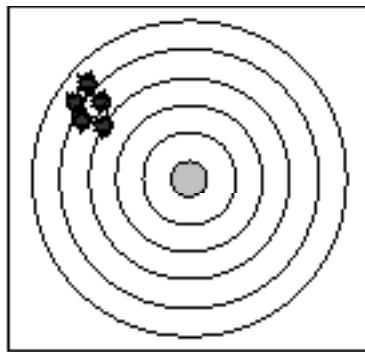
1. Good reliability, poor validity. 2. Poor reliability, good validity. 3. Good reliability, good validity.
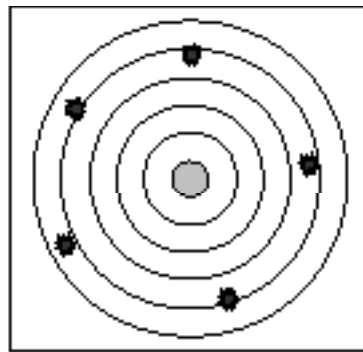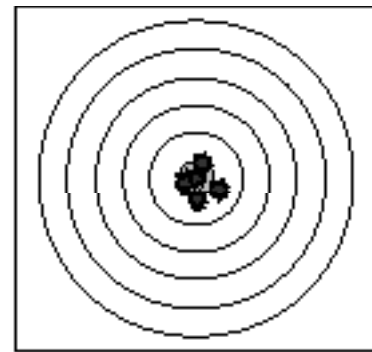
Fortunately, the validity of public health measures is quite good. Cause of death on death certificates is certified by a physician. Survey measures have been tested to maximize validity. Birth weight is reported at the birth hospital. There are some issues with the validity of the measurement of racial and ethnic group status (discussed in Appendix H), but on the whole, the measures in this report have a high degree of validity.

The underlying population risk for a given health problem will be relatively stable, but measures of the problem itself will have variability, even when the measurement is drawn from the entire population. That variability indicates poor measure reliability. The reasons for the variability include three primary factors: (1) the health events are relatively rare, (2) the population size is relatively small, and (3) the health events do not occur at regularly occurring intervals. For instance, infant

mortality is an extremely important indicator of health status and access to care in a given population. But it is relatively rare—occurring in only about 4.5 out of 1,000 births. Measured across all births in Utah, the measure is fairly reliable (4.5 ± 0.3 infant deaths per 1,000 births between 2004 and 2007). In Utah's Black/African American community, however, the infant mortality rate over the same time period (8.4 infant deaths per 1,000 births to Black/African American women) had a 95% confidence interval of ± 4.8 The measure, infant deaths, has virtually the same validity in the Black/African American population as it does in the overall state population. But because infant deaths are relatively rare, the population of Black/African American women giving birth is relatively small, and infant deaths do not occur at regularly-timed intervals, the time sample we have used (2004–2007) produces a measure that is less precise in the Black/African American population than it is in the entire state.

Appendix H: Methodology and Validity of Public Health Data Sets

The race and classification scheme used in the U.S. was discussed in <u>Appendix B</u>. That classification scheme, however, is only as good as its ability to be accurately applied by the people who report the data to the public health vital statistics and surveillance systems. In general, race and ethnicity are believed to be more valid to the extent that they have been self-reported. The following paragraphs describe the method used to classify an individual into one or more racial and ethnic groups. Known validity issues regarding the application of the race and ethnicity classification schemes in public health have been noted.

BIRTH CERTIFICATES
The child's mother and father complete a question sheet that includes all personal information, such as names, street address, race and ethnicity. The race and ethnicity fields are open-ended, meaning the mother and father write in words that describe their race and ethnicity. There is a standard coding system that classifies them according to what they wrote. The infant's race/ethnicity status is not derived from both the mother's and father's race and ethnicity; it is based only on the mother's.

DEATH CERTIFICATES
Race and ethnicity on the death certificate are completed by a funeral director. He or she speaks with the family of the deceased. The next of kin is usually considered the "informant" for purposes of completing the death certificate. Studies have shown that light brown-skinned races and ethnicities, such as Hispanic and American Indian/Alaska Native, are sometimes reported to be White and non-Hispanic. This appears to be a widespread problem affecting death data from most states. However, most decedents of non-White races are reported accurately.

COMMUNICABLE DISEASE SURVEILLANCE
The state requires mandatory reporting of all diagnosed cases of certain infectious diseases. Usually, a nurse from a local health department completes the disease report with the affected individual on the telephone and asks the person to self-report on separate race and ethnicity questions. However, the information is occasionally derived from medical records or physician reports.

HEALTH SURVEYS
Respondents to health surveys generally, although not always, self-report. The validity of the response is determined primarily by how well the race/ethnic categories used on the survey instrument match what the respondent thinks. The health surveys used in this report include the Behavioral Risk Factor Surveillance System (BRFSS), Pregnancy Risk Assessment Monitoring System, and the Utah Healthcare Access Survey (UHAS). BRFSS and UHAS include data only from Utahns with residential phones until 2009. For more information about state data sources, analysis techniques, and limitations, see <u>http://ibis.health.utah.gov/home/Help.html</u>.

UTAH CANCER REGISTRY
The Utah Cancer Registry derives cancer incidence records from several sources. The primary source is the hospital medical record. In most cases, the attending physician records the race and ethnicity information on the medical record, although it might also appear on the hospital admission form that was completed by the patient. Sometimes race and ethnicity information on cancer registry records derive from death certificates, in which case they would be prone to the same limitations as the death

certificate data in general. Hispanic ethnicity for cases with missing data are derived from the New Mexico Spanish surname list.

Utah Birth Defects Registry

Under Utah regulation, all hospitals and birthing centers are required to report any time a baby is born with a birth defect. Once the report is received, a staff member collects information from the medical records of the infant and the mother.

Utah Violent Death Reporting System

This surveillance system collects detailed information from death certificates, medical examiner records, police reports, crime lab records, and supplemental homicide reports on all violent deaths in Utah, including poisoning deaths, homicides, deaths of undetermined intent, unintentional firearm-related deaths, and deaths due to legal intervention.

United States Census Bureau Data

Population estimates and poverty rates derive from the U.S. Census Bureau. Until 2000, the U.S. Census Bureau collected demographic data once each decade, as part of the census count. Now, the Bureau continuously collects demographic information through the American Community Survey (ACS). The ACS is conducted by mail to persons with mailing addresses, with telephone and in-person follow-up, like the decennial census. The primary difference between the ACS and the decennial census is that the ACS uses sampling instead of seeking to interview all people. However, evidence suggests that sampling is better at estimating minority populations than census methodology.[128] The ACS interviews the resident population without regard to the person's legal status or citizenship. The survey is completed through random sample and undocumented residents are included. Anyone who lives in the United States for more than two months out of the year is usually considered a resident. "Non-citizen" includes any non-citizen, with or without a visa. Population estimates are generally very good, but do rely on response from individuals. Although no one is intentionally excluded from the survey based on citizenship status, and the information gleaned by the survey is not provided to immigration officials, questions remain about whether certain disenfranchised groups are willing to participate. See http://www.census.gov/acs/www/Downloads/tp67.pdf for more information.

Overarching Issues

Hispanic persons who may be White by the Census Bureau definition will often report their race as "Other." The Hispanic ethnicity question is asked first on surveys to allow respondents to self-identify as Hispanic ethnicity prior to hearing the race question. But it appears that Hispanic persons often do not embrace the Census Bureau definition of race.

Classifying persons into standard race categories requires that the Census Bureau race definitions are known and understood. In South Asia (e.g., India), the Middle East, and the Philippines, classification errors are probably common.

Different data systems are adopting the Office of Management and Budget standards at different times.

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